HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 20, NO. 3, ABSTRACTS 301-450. MARCH 1980

LONDON: HER MAJESTY'S STATIONERY OFFICE

£1.50 net

Hospital Abstracts aims to cover the whole field of hospitals and their administration, with the exception of strictly medical and related professional matters. The abstracts purport to be fair summaries of the original papers; no responsibility can be accepted by the Department of Health and Social Security for the statements or opinions expressed in them.

Copies of publications and reprints of articles, for early notice in Hospital Abstracts, are invited. They should be addressed to: The Librarian, Department of Health and Social Security, Alexander Fleming House, Elephant and Castle, London, SE1 6BY, (01-407 5522, ext. 6954 or 7854) to whom also correspondence relating to the contents of the journal should be sent.

Hospital Abstracts is published monthly by Her Majesty's Stationery Office and is obtainable directly from the addresses shown on the back cover price £1.50 (£1.66½ by post). Annual subscription £21.65. Subscriptions and orders by post should be addressed to Her Majesty's Stationery Office, P.O. Box 569, London, SE1 9NH.

HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE
PREPARED BY THE DEPARTMENT OF HEALTH
AND SOCIAL SECURITY

VOLUME 20, NO. 3, ABSTRACTS 301-450. MARCH 1980
LONDON: HER MAJESTY'S STATIONERY OFFICE

© *Crown copyright 1980*

First published 1980

ISBN 0 11 722665 3
ISSN 0018 5507

CONTENTS

	page
Hospitals in Great Britain	111
Hospitals in other countries	111
Planning, design and construction	112
Construction methods and building materials	113
Hospital design	113
Extensions and reconstructions	114
Design of special hospitals or units	115
Guiding and signposting	115
Engineering services	116
Lifts and escalators	116
Energy conservation	116
Ventilation and air-conditioning	117
Sanitary equipment and fittings	117
Staff generally	118
Staff complements	118
Recruitment and manpower	118
Salaries and superannuation	118
Staff management	118
Staff training	120
Staff welfare	121
Other staff amenities	121
Special classes of staff	121
Medical staff	121
Nursing staff	121
Ancillary staff	125
Organisation and administration	125
Hospital archives	126
Economics of hospital management	126
Bed occupancy, economic use of beds	127
Electronic data processing	128
Libraries	129
Organisation and methods, work study	129
Medical records	129
Hospital statistics	131
Public relations	131
Legal aspects of hospital administration, ethics	131
Finance and accounting	132
Finance	132
Costs	133
Catering, dietetics, kitchens	134
Hospital catering	134
Dietetics in the hospital	135
Kitchens	135
Canteens, staff dining-rooms	135
Hygiene in the hospital kitchen	135
Laundries and linen service	136
Hospital domestic management	136
Hygiene in the hospital	137
Hospital infections	137
Sources of infection	138
Prevention and control	139
Air hygiene	141
Disposal of waste	141
Safety measures	141
Electrical accidents	141
Fires and fire prevention	141
Planning for mass emergencies	141
The patient	142
Admission and reception	142
Welfare of the patient	142
Voluntary service, voluntary workers	143
Hospital social work	143
Transport of patients	144
Hospital care	144
Terminal care	146
Home care, after-care	147
Special departments	147
Wards	147
Pharmacy	148
Laboratories	150
Blood transfusion department	151
Diagnostic X-ray department	152
Departments for special therapy	152
Intensive care units	152
Specialized hospitals and units	152
Out-patient	152
Casualty and accident	153
Day hospitals	154
Infectious diseases and isolation	155
Children	155
Geriatrics and long-stay	156
Cancer	157
Cardiology	157
Urology	157
Surgery	157
Maternity	158
Ophthalmology	159
Psychiatry	159
Subject index	v
Addresses of publications	x

HOSPITAL ABSTRACTS

Vol. 20 March, 1980 No. 3

HOSPITALS IN GREAT BRITAIN

301. KERRANE, T. **The post-graduate hospital scene in London.** *Nursing Focus*, London, 1979, Nov., vol. 1, no. 3, pp. 107-110.

London has 13 academic post-graduate medical institutes, 12 of which are linked to specialist post-graduate teaching hospitals. These hospitals have three main functions: specialist patient care; teaching; and research. Finance for the hospitals which are managed by Boards of Governors, is supplied directly by the Department of Health and Social Security and the institutes are funded by the University Grants Committee and the Medical Research Council. The Secretary to each of the Boards has a 'chief executive' role and is responsible for ensuring that the team of senior officers make their maximum contribution to the hospital service. The Bradbeer report (1961) and the recent Speakman report both recognise the co-ordinating function of the 'chief executive' within the modern concept of the team approach. These hospitals have been pioneers in specialist nursing courses and the head of the nursing service enjoys an autonomy partly eroded in other hospitals affected by the 1974 re-organization of the health service. The post-graduate hospitals may face management changes in the future, but no one doubts their major contribution to the British hospital system.

302. DAVIES, R. **Alternatives to the NHS.** *Midwife, Health Visitor and Community Nurse*, London, 1980, Jan., vol. 16, no. 1, pp. 12, 14, 15.

The Nuffield Nursing Homes Trust has developed rapidly since its foundation by BUPA in 1957. Their 30 hospitals, largely paid for by local appeals, are run on non-profit lines and are governed by the Nursing Homes Act of 1975. Monitoring of hospital performance is carried out by the Area Health Authority and the Department of Health and Social Security regards the hospitals as playing a complementary role to the nation's hospital service. All the hospitals have modern operating departments, diagnostic X-ray apparatus and, in many cases, out-patient facilities. The matron of each hospital is the manager on the Trust's behalf and has overall responsibility for staffing and admissions. Because the hospitals are small, senior nursing staff enjoy close contact with the patients and play a large part in planning their care. In 1979 the Trust began to establish educational posts, such as Nurse Training Officer and Clinical Nurse Adviser, in order to develop national and in-service training schemes.

HOSPITALS IN OTHER COUNTRIES

See also Abstract No. 365

303. ROEMER, M. I. **Regionalized health systems in five nations.** *Hospitals*, Chicago, Ill., 1979, Dec. 16, vol. 53, no. 24, pp. 72, 76, 78, 80, 82.

Regional organizations concerned with health care vary in strength according to how the scheme is financed. The system is weak in the United States where finance from

private sources maintains the autonomy of the individual hospital. In Canada, half health care costs are met by federal grants and half by the provinces, the latter being responsible for health planning and payments to individual hospitals. In France, 90 per cent of the population are protected by national health insurance and hospitals are graded into three levels of function and distributed within 21 regions. These regions review and approve hospital budgets. Norway has had a full national health system and since 1969 the hospitals have been co-ordinated into five integrated regions. Regional organization has been a feature of the British National Health Service since its beginning and despite the bringing together of different aspects of the health service, hospitals are still financed on the old regional basis. However unstructured, regional systems aim to define the function of the hospital more specifically, reduce costs and provide facilities where they are most needed.

PLANNING, DESIGN AND CONSTRUCTION

304. O'CONNOR, C. P. **A data set for hospital planning.** *Health Care Management Review*, Germantown, Md., 1979, vol. 4, no. 4, pp. 81-84.

Hospital planners and managers find themselves inundated by numerical reports, but this data has never been linked to a coherent theory of planning or management. This problem can be remedied by structuring data, using the concept of critical success factor (CSF) developed at the Massechusetts Institute of Technology. CSFs are the areas where things absolutely must go right for performance to be maintained at desirable standards. Ten CSFs for hospital planning are listed, together with the questions to be answered and measurement tools. The CSFs are: government regulations; third party reimbursement; geography; competitive situation; medical staff; licensing process; labour market; supply costs; union organizing campaign; and cash flow problems.

305. FROUD, B. **CAPRICODE—Hospital building procedures explained.** *Nursing Focus*, London, 1979, Nov., vol. 1, no. 3, pp. 111-113, 115.

The six main stages of the Department of Health and Social Security Capricode system for health building procedures apply whether the scheme is a major project handled by the regional health authority or a delegated scheme handled by the area health authority. Stage One contains the outline project intentions, including: (i) the establishment of need; (ii) the setting up of a project team; (iii) fixing of target dates and site appraisal; (iv) costing; and (v) submission of the project for approval. Stage Two, planning, includes: (i) the preparation of planning policies both for the whole hospital and its various departments; (ii) selection of building type and layout of departments; and (iii) budget cost and revised revenue estimate. Stage Three, design and cost planning, includes: (i) a notational cost plan; (ii) a detailed design brief; (iii) preparation of equipment schedules; and (iv) a pre-tender estimate and submission for approval. Stage Four includes the award of the contract and the construction of the building, Stage Five the commissioning of the building and Stage Six, an evaluation of the scheme about nine months after completion. It is important for nursing staff involved in new projects to understand these procedures.

306. HAYWOOD, S., REDMORE, E. and OSTLE, B. **Case studies in N.H.S. management.** Hull, University of Hull, Institute for Health Studies, 1979. iii, 136pp. bibliog.

Three case studies of actual management problems are presented, for use in training senior staff. The topics are: (i) the allocation of beds in new hospital development; (ii) the role of District Management Teams; and (iii) financing a new District General Hospital. Each study includes a commentary and discussion of possible solutions. Some basic conflicts of interest and values are highlighted; health service managers must be aware of these potential problems.

CONSTRUCTION METHODS AND BUILDING MATERIALS

See Abstract No. 310

HOSPITAL DESIGN

307. MATHERS AND HALDENBY ARCHITECTS. **Interstitial space in health facilities: research study report; an investigation and report on the application of the interstitial space concept to health care facilities.** Ottawa, Department of National Health and Welfare, 1979. Various pagination, bibliog.

Twelve Ontario hospitals and a number of others in Canada, the United Kingdom and U.S.A. were studied. Interstitial space provides a service level beneath the floors and allows layout and functional re-organization on the upper floors to be carried out with minimal disruption. Ducts and wiring can easily be changed around, whilst maintenance costs are also reduced. The study concludes that increased initial construction costs are heavily outweighed by cheaper running costs and greater flexibility of use.

308. COPPA & AVERY CONSULTANTS. **Architectural design for hospitals: hospital planning, ward design and efficiency, out-patient, accident and emergency departments.** Monticello, Ill., Vance Bibliographies, 1979. 9pp. (Architecture Series: Bibliography A-148.) $2.00.

This bibliography provides the reader with selected references in the important field of architectural design for hospitals. After an introduction and history of hospital architecture, the reader is provided with a guide to architectural planning and design, ward design and efficiency, and the design of various departments. The majority of the 124 entries are American but some English material and a few foreign language items are included.

309. WALLINGTON, J. W. **Mechanical engineering in hospitals.** *Chartered Mechanical Engineer*, London, 1980, Jan., vol. 27, no. 1, pp. 41-44.

Engineering services constitute about half the cost of a large modern hospital. The design process, the need to conserve energy and the sophistication of modern equipment make servicing a hospital extremely complicated. Most hospitals are designed on a

'total energy' concept, the viability of which depends upon the size of the electrical load. The author describes various electrical systems suited to different sized hospitals which will both provide for an emergency supply of electricity and conserve energy. The plant providing mechanical ventilation is the most expensive single engineering item. It provides comfort in rooms placed in the inside of the building and reduces the risk of infection in operating theatres by supplying a flow of filtered air. Most modern hospitals receive their medical gases from a central supply and suitable piping has to be installed. Large incineration plants, often allied to a waste heat boiler, forms another aspect of modern hospital engineering. Some work may also arise following inspections carried out under the Health and Safety at Work Act.

310. HOWELLS, S. **Building up to Nucleus: a history of NHS hospital building.** *CHC News*, London, 1980, Jan., pp. 8-10.

In the early days of the National Health Service relatively little was spent on hospital capital development. The publication of *A hospital plan for England and Wales* saw the start of a 10-year rolling programme aimed at massive replacement of existing hospitals. The Department of Health and Social Security produced guidance material and carried out small development projects. Research led to the Greenwich Hospital project, the Best Buy hospitals, and the Harness programme for the standardization of designs. Economic constraints led to new objectives and the Nucleus development. Its aims are: (i) to produce designs for a first phase of about 300 beds, capable of growth to 600-900 beds; (ii) to restrict the range of standard designs; (iii) to seek the utmost economy in capital and running costs consistent with acceptable clinical and service standards; and (iv) to limit provision in the first phase to what is needed to support the service provided in that phase.

EXTENSIONS AND RECONSTRUCTIONS

311. LE TAILLANDIER DE GABORY, V. and KORNILOFF, A. Une répose au problème de la modernisation: les composants hospitaliers types au Centre Hospitalier de Meulan. **[An answer to modernisation problems: standard components used at Meulan Hospital Centre.]** *Techniques Hospitalières*, Paris, 1980, Jan., vol. 35, no. 412, pp. 106-112.

The reasons for the choice of a particular modernization programme for Meulan Hospital are explained. The first two phases, which entailed updating the existing blocks, which will be used for medium and long-stay patients, are now completed. The third phase comprising the construction of capacity for 198 acute beds and an entirely new technical infrastructure, is due to be completed in 1981. The new building will occupy a site on an island in the Seine, in an area where the existing buildings are old and many, including the present hospital building, have mansard roofs. In order to harmonize with this environment, the new building has been designed to have four floors only, with a traditional mansard roof, a cornice, dormer windows, and the traditional facade. Because of the danger from flooding, the basement could not be used, so all the technical and general services are on the ground floor and first floor, and the wards are on the upper two floors. The architect, Andre Korniloff, a prize winner in the Ministry of Health's Standard Hospital Components competition, experienced

no difficulty in adapting the components system to the Meulan project. There are four tables, a map of the area, a sketch of the facade of the new building, and detailed plans of the ground, first, and second floors.

DESIGN OF SPECIAL HOSPITALS OR UNITS

312. GUEY, S., VERRIER, B. and GAILLARD, L. Installation d'un scanographe, essai de création d'un site spécialisé. **[Computer tomography, setting up a special unit.]** *Techniques Hospitalières*, Paris, 1980, Jan., vol. 35, no. 412, pp. 65-70.

An account is given of how a whole body scanner department was installed in empty premises near the hospital X-ray department. The main constraints were the position of the pillars in the building and the need to provide separate entrances for walking and bed-ridden patients. The available space was divided as follows: reception area; waiting area for walking patients; dressing-rooms; waiting area for patients on stretchers; preparation and anaesthetics room; medical room; examination room; technical measurement units (computer, X-ray equipment, tapes); and viewing rooms. Since the equipment emits very little ionising radiation, there was no need for the traditional lead and glass material, and a succession of entirely glazed partitions could be installed. A detailed ground plan is provided, and there are two other diagrams and three photographs of the interior. The department has been working smoothly for almost ten months since its completion; 280 patients are examined each month and the department operates for ten hours a day.

313. NEW ZEALAND. DEPARTMENT OF HEALTH. HOSPITAL DESIGN AND EVALUATION UNIT. **Psychopaedic services hospital facilities: a study of in-patient accommodation.** Wellington, Department of Health, 1979. [vi], 116pp. bibliog. (Report No. 7) ISBN 0110 6929.

The New Zealand Royal Commission of Inquiry into Hospital and Related Services made a number of recommendations about the physical accommodation needed for persons suffering from mental handicap. Subsequently a study has been made of accommodation for patients not associated with grossly disruptive or aggressive behaviour. Guidelines and design requirements are explained. In the concluding chapter information is given on design of particular rooms and facilities.

GUIDING AND SIGNPOSTING

314. DUNAND, J.-P. and BALLMER, T. Une expérience de signalisation à l'Assistance Publique de Paris. **[An experimental signposting system by the Assistance Publique de Paris.]** *Techniques Hospitalières*, Paris, 1980, Jan., vol. 35, no. 412, pp. 115-119.

The Pitié-Salpetrière Hospital Group extends over an area of 30 hectares, has 2,500 beds, and 300,000 out-patients a year. Outsiders experience considerable difficulty in finding their way around the labyrinth of streets and buildings; some of the entrances are concealed under archways or in courtyards, and some departments occupy parts of as many as five separate buildings. An imaginative attempt to solve the problem is

described here. An information system based on the lines and stations of the Métro system has been devised. At the entrance gates a key to the whole system is signposted (for example: follow the red line to Mazarin station, then follow the arrows). The visitor having selected his destination and his route, then finds guidance and confirmation along the way in the form of identifying symbols, with further signposts at the stations (intersections). Finally, identifying signs are placed near the entrance to each department. The signs are painted white on a black ground, and a coloured dot indicates the 'line' to follow. The workings of the system are explained in four diagrams.

ENGINEERING SERVICES

See Abstract No. 309

LIFTS AND ESCALATORS

315. QUIGNARD, B. De quelques économies d'énergie. **[Energy conservation.]** *Techniques Hospitalières*, Paris, 1979, Dec., vol. 34, no. 411, pp. 61-64.

Ten ways in which consumption of electricity on lifts, stairs, and corridors could be reduced are suggested. These include: (i) the installation of a mechanaism to ensure that the lift stops at each floor at which it is required rather than travelling up and down for each user; (ii) combining the call system for two or more lifts to ensure that only one responds to a call from the same floor at the same time; (iii) the installation of a counterweight in the lift mechanism; and (iv) the installation of a simple 'lumistop' system in the automatic time switch in corridors and stairways so that the light will fade gradually instead of going out abruptly.

ENERGY CONSERVATION

See also Abstract No. 315

316. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. DIRECTORATE OF WORKS OPERATIONS. **Energy management for health service buildings: a system for monitoring and targeting energy consumption in health service buildings.** DHSS, Directorate of Works Operations, 1979. 99pp.

In Britain the energy costs of the National Health Service have increased from £27 million in 1967/68 to £120 million in 1976/77. The monitoring of energy consumption has become an essential tool of management; the system described is a formal method that can establish the need for, and form of, viable energy saving measures. It is suggested that a 10 per cent saving can be achieved by 'good housekeeping'; in other words avoidance of waste. Appropriate capital investment can save another 10 per cent by: (i) resetting, repair and modification of equipment; (ii) thermal insulation; (iii) tighter window fittings; (iv) time clocks for intermittently used areas, such as laboratories or administration blocks; and (v) restoration or upgrading of insultation on plant, equipment, pipes and ductwork. It is estimated a further 15 per cent could be saved by longer-term investment in better machinery, buildings and materials.

317. KOHLER, D. J. **System for waste disposal reclaims heat.** *Hospitals*, Chicago, Ill., 1979, Nov. 1, vol. 53, no. 21, pp. 149, 150, 152, 153.

This article describes the methods used to dispose of combustible solid waste and achieve heat reclamation at Bridgeport Hospital, Connecticut. A pyroletic-type incinerator was selected with a heat reclamation process in which exhaust gases preheat the boiler feed water. The combined cost of the incinerator and the heat reclamation equipment indicated a payback period of six years. The design of the incinerator and its installation is described. Because the hospital lacked external surface space, the incinerator was designed to fit inside the building with the heat reclamation system one floor below in the boiler room. Hot gases from the incinerator combined with those from the boiler pass through reclamation coils and transfer heat to the boiler feed water system. Thus energy is saved by the reclamation of both incinerator waste heat and boiler heat.

VENTILATION AND AIR CONDITIONING

318. CALORIO, G., LA MONTAGNA, C. and ASTRUA, F. Il condizionamento dell'aria in ospedale: esperienze di progettazione, realizzaxione e gestione nella clinica Pinna Pintor. **[Air conditioning in the hospital: experience in planning, installing, and operating in the Pinna Pintor Clinic.]** *Ospedale*, Turino, 1979, Nov./Dec., vol. 32, no. 11/12, pp. 359-372.

The authors describe the planning and installation of air conditioning plant in the Pinna Pintor Clinic in Turin, which was built in 1955 and extended, first in 1958 and then again in 1974. Two systems have been used—fan-coil and induction; these are compared in regard to installation, maintenance, and convenience in use. Maintenance data were collected for 1975-1977 and the relationship between the performance of the system and the amount of routine and non-routine (running repairs) maintenance was analyzed. The value of an analysis of these data for the planning and installation of further systems is also discussed.

SANITARY EQUIPMENT AND FITTINGS

319. THERRE, C. and PAOLI, Y. Réflexion sur l'hygiène hospitalière, peut-on imiter la suède? **[Thoughts on hospital hygiene, is it possible to imitate Sweden?]** *Techniques Hospitalières*, Paris, 1980, Jan., vol. 35, no. 412, pp. 87-90.

The author regrets that French standards of hospital hygiene compare unfavourably with Swedish standards. He describes the bathing systems for patients which he found when he visited a number of hospitals in Sweden, and the equipment which he found there. The latter included a bath which can be raised or lowered so that the staff need not stoop; a stretcher-cum-hoist which takes the patient from his bed into the bath, an adjustable bath chair, a shower trolley, and a shower stretcher. Most of this equipment, which is rarely seen in France except in functional rehabilitation establishments, is designed and produced in Sweden. It is based on a careful analysis of hospital organization. The transport function has been combined with the bathing function so that staff are spared unnecessary loading and patients are not subjected to sudden movements. The author proposes that each patient's room should have bathing facilities and would

like French doctors to remind their patients that hygiene starts with soap and water and not with the consumption of antibiotics. Four items of bathing equipment are illustrated.

STAFF GENERALLY

STAFF COMPLEMENTS

320. FRIEDMAN, E. **Less is more in rural hospital staffing.** *Hospitals*, Chicago, Ill., 1979, Nov. 1, vol. 53, no. 21, pp. 115, 116, 119, 120.

Staff in rural hospitals are often trained to carry out several different tasks when the hospital neither needs nor can afford full-time staff for certain posts. Examples of such staff are found at Caribou Memorial Hospital, Soda Springs, and Fremont General Hospital, St. Anthony, both in Idaho. Most of the hospitals provide training for the multi-skilled employee, but in the area of medical technology, several courses exist for training in a variety of medical technical skills. The best known is the Rural Allied Health Manpower Project at the School of Technical Careers, University of Southern Illinois. Thirty students have completed the course and 29 are employed, but only nine in the provision of multi-competent services, possibly because of difficulties over supervision. Some courses tend to concentrate on one skill and one specializes in training technicians for out-patient services. Although still a random art, the training of multidisciplinary staff is vital for patient care in rural settings.

RECRUITMENT AND MANPOWER

See Abstract Nos. 332, 334, 335, 341, 397, 411

SALARIES AND SUPERANNUATION

See Abstract No. 337

STAFF MANAGEMENT

See also Abstract Nos. 326, 331, 336, 339, 343

321. HEDA, S. S. and SHIRK, M. B. **Human resources accounting system and productivity monitoring.** *Hospital and Health Services Administration*, Chicago, Ill., 1979, vol. 24, no. 4, pp. 36-45.

Most hospitals use some sort of productivity monitoring system based on the relationship of inputs to outputs. The existing systems fail to recognize distinctly the primary concerns of health care managers. The underlying concept of the human resources accounting system proposed in this paper is to identify and clearly define the activities in which the cost centre uses its resources, and then to develop a mechanism to obtain information on actual resources expended in these activities for a certain time.

The system was introduced on a pilot basis in a test cost centre at Rush-Presbyterian-St. Luke's Medical Center, Chicago, in November 1976. It has proved to be a very valuable means of monitoring productivity and it goes beyond that to provide detailed accounting of resources spent. The system assists the administration and the cost centre manager in objectively evaluating trends and changes in resource allocation. It also provides a mechanism to monitor the effectiveness and efficiency of resource use in terms of short-range and long-term objectives.

322. EAVES, D. **Time for a change.** *Nursing Mirror*, Sutton, 1980, Feb. 7, vol. 150, no. 6, pp. 22-24.

In addition to disturbing social and family life, it has to be shown that working a night shift upsets bodily function. In particular, it affects circadian rhythms. This results not only in the lowering of performance levels, but sometimes in loss of appetite, bowel malfunction, indigestion, fatigue and difficulties in sleeping. Research suggests that it takes about two weeks to adapt fully to a night work regime, while initial adaptation occurs only after six days. Incentives might encourage some nurses to work permanent night duty, but many of the night staff will still come from the rotation of day staff. From a study of the relevant literature it seems that quickly changing rotas (such as the $2\times 2\times 3$ shift system) are preferable to long stretches of duty.

323. SMITH, L. D., BIRD, D. A. and WIGGINS, A. C. **A computerized system to schedule nurses that recognizes staff preferences.** *Hospital and Health Services Administration*, Chicago, Ill., 1979, vol. 24, no. 4, pp. 19-35.

Managing a hospital nursing unit is a complicated exercise. Management of the nursing staff is typically structured at five levels: (i) annual budgetary determination of staffing; (ii) recruitment and assignment of permanent staff; (iii) generation of monthly shift schedules; (iv) daily monitoring of staffing levels; and (v) assignment of specific patients and/or tasks to individual nurses. The focus of this paper is on level three. It discusses the disaggregation of the scheduling problem to the extent that individual preferences and non-routine constraints are considered in addition to the more general policy constraints when generating shift schedules automatically on a monthly basis. The system developed uses an IBM 370/125 computer. It is managed by a single staffing clerk who spends about five hours per month in file maintenance and preparation of special requests for 15 units, and about one full working day per month in modifying the tentative schedules for all 15 units into acceptable form.

324. CONEY, A. C. and BARMISH, A. S. **What to do when organized labor comes calling.** *Hospitals*, Chicago, Ill., 1979, Dec. 16, vol. 53, no. 24, pp. 85, 86, 88, 90.

The increase of organized labour in the health care field has forced United States hospitals to use industrial relations techniques in collective bargaining strategies. A sound industrial relations scheme helps employees understand hospital policies. Many staff directors have educated themselves in industrial relations, but some large hospitals employ outside specialists. The industrial relations director in the hospital must: (i) be familiar with court and National Labor Relations Board (NLRB) rulings; (ii) deal with situations as soon as they arise; (iii) have the support of the hospital administration; and (iv) have available the help of a labour attorney until he has become experienced in the legal aspects of industrial relations. If the hospital attempts

to deal with unions without industrial relations expertise, it may break NLRB regulations. The establishment of a solicitation policy and a review of staffing policies carried out by experts before union campaigning starts can save difficulties later.

325. ELLIOTT, C. L. and KAISER, G. **Patients, not unions, first concern of hospitals.** *Hospitals*, Chicago, Ill., 1979, Nov. 1, vol. 53, no. 21, pp. 76-79.

Hospital employees in the United States have a right to engage in union organizational activities without interference from their employers. However, because some activities may be disruptive to patient care, hospitals should adopt a no-solicitation/non-distribution rule under the guidance of the National Labor Relations Board. Solicitation to join a union and distribution of literature is generally not allowed in patient and treatment areas. Distribution only is prohibited in working areas, such as laundries, even in non-working hours. Rules vary from one hospital to another, but there must be sufficient suitable areas for union activities to be held outside working hours. Unless special circumstances exist, any rule against union badges is unlawful and posting of union notices must also be permitted. Because the law relating to employee organization rights is changing, hospitals should investigate its current status before enforcing rules concerning solicitation, distribution and union meetings.

STAFF TRAINING

See also Abstract Nos. 336, 354, 393, 410

326. WILFLING, S. and KRCZAL, A. Elemente der Planung von Ausbildungsprogrammen för das Krankenhaus-Management. **[Elements in planning and training programmes for hospital management.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1979, Dec., vol. 20, no. 12, pp. 618-625.

A practical guide is presented to the planning of management training programmes in the hospital. Staff productivity can be increased substantially by means of carefully planned initial training and by re-training at intervals. Training requirements should be studied first of all, and at this stage it may be advisable to call in an expert—a university professor or business consultant, for example—to study management climate, organizational structure, industrial relations, individual responsibilities, the system of rewards, and motivation. Once the training requirements have been established, the content and objectives of the programme can be determined. Individual and collective teaching methods can be used, both on and off the job. The author suggests the use of workshops, group seminars, case studies, and role games. Length of training will depend on previous training, the content and objectives, the methods used, and finance, and should not be too long, or the participants will become frustrated. Suggestions are made on how to evaluate training methods and the success of the programme, and the selection of course leaders is discussed.

327. TOBIN, H. M., WISE, P. S. Y. and HULL, P. K. **The process of staff development: components for change.** 2nd edition. St. Louis, Mo., London, C. V. Mosby, 1979. xiii, 248pp. bibliogs. ISBN 8016 4996 x. £11.00

In-service training of hospital staff, in particular nurses, is discussed. Along with peer review, continuing education is a method of ensuring standards and developing

staff potential. Education theory is examined and some concrete advice given on designing and implementing courses.

STAFF WELFARE

See Abstract No. 330

OTHER STAFF AMENITIES

328. EARDLEY, A. and SIMPSON, S. **Hospital day nurseries: a survey.** *Health and Social Service Journal*, London, 1980, Jan. 25, vol. 90, centre pages; pp. A35-A39.

A survey was undertaken to acquire basic information on the number of day nurseries attached to National Health Service hospitals for the children of staff, on the facilities available, and on staff conditions. Questionnaires were returned from 79 of the 108 known nurseries. The largest number of nurseries were situated in the four Thames regions. Most were established to assist in the recruitment and retention of staff, and more than half gave priority to specific groups of staff. Almost half had a waiting list. The mean number of places was 30. Babies of six months or less were accepted by 30 per cent. Although 70 per cent had been opened within the last 10 years, only 20 per cent were purpose-built. More than half were open for at least 10 hours a day. In 80 per cent, most or all of the staff were trained, but there was evidence of understaffing in almost half. There was considerable variation in salary structures. The service provided appears to compare favourably with other day care establishments, but hospital day nurseries are still a comparative rarity.

SPECIAL CLASSES OF STAFF

MEDICAL STAFF

See Abstract No. 360

NURSING STAFF

See also Abstract Nos. 322, 323, 327, 352, 389, 396, 398, 400, 406, 421, 432

329. MARRINER, A. **The nursing process: a scientific approach to nursing care.** 2nd edition. St. Louis, Mo., London, C. V. Mosby, 1979. x, 276pp. bibliogs. ISBN 0 8016 3122 x. £6.50

The nursing process is here defined as the application of scientific problem solving to nursing care. The steps of the nursing process, to each of which a chapter is devoted, are classified as: (i) assessment; (ii) planning; (iii) implementation; and (iv) evaluation. In addition to chapter bibliographies, selected readings are reprinted, mainly from the periodical literature.

330. ARBS, I. and others. God bedring—om plejepersonalets arbejdsmiljø. **[A considerable improvement in nursing staff's working environment.]** *Sygeplejersken*, København, 1979, Dec. 5, no. 48, supplement; pp. 2-19.

Nine nursing students carried out a survey using a questionnaire given to the staff on

the 18 general wards of Holstebro Central Hospital. The main aims of the study were to investigate the quality of the working environment on the wards and to raise the level of the staff interest in safety, health and job satisfaction. Topics covered comprised: (i) the dangers of hospital work (accidents, radiation, chemicals, static electricity; (ii) working hours; (iii) under-staffing and overtime; (iv) external factors (noise, draughts, allergies, temperature and humidity, over-exertion, smells, mental strain, exhaustion), and (v) staff influence on decision-making. As had earlier been concluded with industrial workers, staff levels of interest in the working environment were far too low. Complaints about general health were widespread—nurses often sacrifice their own health for the benefit of their patients. The hospital administration seems unaware of the situation at lower staff levels. There are 22 references (all Danish). The article is illustrated with block diagrams and statistical tables.

331. MOLONEY, M. M. **Leadership in nursing: theory, strategies, action.** St. Louis, Mo., London, C. V. Mosby, 1979. xiv, 221pp. bibliogs. ISBN 0 8016 3471 7. £5.75

Behavioural and social sciences are important to nurses, particularly those with management responsibilities. The author attempts to emphasize the leadership rather than administrative aspects of management and she gives the results of her research project on nursing leadership. After an introduction there are chapters on leadership theory, strategies and action, with a final chapter on preparation for nursing leadership and predictions for its future.

332. ARNOLD, N. **Where have all the nurses gone?** *British Medical Journal*, London, 1980, Jan. 19, vol. 280, pp. 199-201.

The author discusses the reasons for the decrease in qualified nurses. Of the total number of nurses, 40 per cent are in training which involves time away from wards. The nursing work load has increased as a result of earlier discharge and the high degree of skill required to meet medical advances. The Salmon reforms have caused loss of morale at the top of the nursing profession and relationships with medical staff have suffered through an increased demand by nurses to work independently. The consequent decline in nursing care could be remedied by: (i) a better shift system, say from 7 am to 2 pm and 1.30 pm to 9 pm, which would improve cover in the evenings and at weekends; (ii) an end to under-funding of the nursing service; (iii) higher entry qualifications; (iv) separation of learners' salaries from those of qualified staff; (v) a streamlining of the Salmon structure; (vi) routine assessment of practical nursing skills; and (vii) better working relationships with medical staff.

333. WORLD HEALTH ORGANIZATION. REGIONAL OFFICE FOR EUROPE. **Nursing services: report on a WHO Symposium, Stuttgart, 20-23 November 1978.** Copenhagen, WHO, Regional Office for Europe, 1979. [iii], 39pp. (EURO Reports and Studies 22) ISBN 92 9020 161 4. Sw.fr.5.

As part of the World Health Organization programme on nursing/midwifery in Europe a number of seminars have been organized. Seventeen proposals emerged from this seminar, mostly calling for more professionalization and appointment of nurse managers at all levels. A legal definition of the title 'nurse' was requested and a need for more research was indicated.

334. MARTIN, D. and CAPELIN, H. **Nursing research project: a report on the characteristics of unemployed nurses and unfilled nursing vacancies.** Manpower Services Commission, Employment Service Division, 1978 [ii], 62pp. (ESP 5 Report No. 63)

The report presents the results of an investigation into the characteristics of registered unemployed nurses, and of unfilled vacancies in England. The mean time required to fill a vacancy was found to be 45 days, the reason for some vacancies being harder to fill was that the work involved unattractive hours or shifts. There was an uneven distribution of nurses with appropriate basic or further qualifications in relation to vacancies requiring such qualifications and a limited and uneven availability of temporary or part-time vacancies. Two main reasons for some nurses being difficult to place were restrictions on the hours they were prepared to work and the closely related factor of family commitments. Unwillingness to travel far to work also emerged as a fairly significant reason why some nurses were placed more slowly. Ability or poor work record was not a significant factor in speed of placement.

335. LEWIS, B. R. **The marketing of nursing: a research report.** Manchester, University of Manchester Institute of Science and Technology, Department of Management Sciences, [1979]. [vii], 536pp. bibliog. £14.00

An extensive survey was conducted during 1976 and 1977 amongst both trainee and qualified nurses to attempt to discover personality profiles for successful and long-serving nurses. Some indications are given of requirements to emphasize in recruitment advertizing. It is suggested that more attention should be given at the selection stage to characteristics that will reduce wastage from training and from the nursing professions. An extensive bibliography is included.

336. NATIONAL STAFF COMMITTEE FOR NURSES AND MIDWIVES. **Foundation management training: developing the managerial role of qualified nurses, midwives and health visitors working in clinical situations.** [Department of Health and Social Security], 1980. 16pp.

Managerial training and development for nurses can be as important as clinical training since it gives an understanding of the real purpose of the organization, i.e. the care of the patient and the maintenance of health. Other important functions for the nurse manager are: (i) co-ordination of services; (ii) teaching and supervision; (iii) counselling of staff, patients, clients and relatives; and (iv) team leadership. The report offers guidelines for provision of management training.

337. STANDING COMMISSION ON PAY COMPARABILITY. **Report no. 3; nurses and midwives.** (Chairman: Professor H. A. Clegg). HMSO, 1980. iv, 51pp. (Cmnd. 7795) ISBN 0 10 177950 x. £2.00

The Standing Commission on Pay Comparability was appointed by the Prime Minister in March 1979 to examine the terms and conditions of employment of particular groups of workers referred to it by the Government in agreement with the employers and unions concerned, and to report in each case the possibility of establishing acceptable bases of comparison with terms and conditions for other comparable

work and of maintaining appropriate internal relativities. In April 1979 the Commission began to investigate the pay of nurses and midwives in the National Health Service and produced their recommendations in January 1980. The report is in six chapters and considers the evidence and results of the comparability study; it also gives an interpretation of the results and summarizes the recommendations and evidence. There are nine appendices including a survey of earnings and the present and recommended salary scales.

338. TRAUER, T. and MOSS, A. V. **Psychiatric patients' opinions of nurses ceasing to wear uniform.** *Journal of Advanced Nursing*, Oxford, 1980, Jan., vol. 5, no. 1, pp. 47-53.

Psychiatric patients in four wards in two general hospitals were asked whether they felt that nurses on their ward should wear uniforms or mufti. At that time all four wards were staffed by nurses in uniform. In one of the hospitals the procedure was repeated immediately after the nurses changed from uniforms to mufti and again at five and seven month intervals. The results showed a general preference by psychiatric patients for their nurses to wear uniforms rather than ordinary clothes. There was no clear trend over time for increased acceptance of mufti on the wards which changed. No differences in preference between the sexes were detected. There were clear tendencies for older patients to prefer uniforms; it was only in the few patients aged 29 or less that a (slight) preference for mufti could be discerned.

339. LEATT, P. and SCHNECK, R. **Differences in stress perceived by head nurses across nursing specialties in hospitals.** *Journal of Advanced Nursing*, Oxford, 1980, Jan., vol. 5, no. 1, pp. 31-46.

Head nurses from 153 units in 25 hospitals in Alberta, Canada, were asked, as part of a larger study, to complete a 21-item questionnaire designed to measure the sources and frequency of stress as perceived by them. The results were analysed in two parts: (i) the sources of stress common to all head nurses were analyzed to determine the content validity of the items; and (ii) the frequency of stress was examined to test the hypothesis that there were differences in stress between the units. Nine specialties were involved: paediatrics, obstetrics, medicine, surgery, rural, auxiliary, psychiatry, rehabilitation and intensive care. There was agreement among the head nurses of all specialties that stress was related to their administrative role, type of patients, task ambiguity, staffing problems, and physician contact. But there were differences between the specialties in the perceived frequency of stress. No attempt is made to rank the specialties by the level of stress. The implications of the findings are discussed.

340. SCHULTE, F. and DAUBER, E. Vorstellung eines Beurteilungsbogens für Krankenpflegeschüler/innen. **[A proposed form for assessing the work and behaviour of student nurses.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, Jan., vol. 33, no. 1, pp. 55-59.

This form for assessing the work and attitudes of student nurses is based on an earlier one which has now been revised as a result of two years' experience of its use. There are five sections, each with a number of subdivisions: (i) general (including behaviour, alertness, attention to hygiene and attitude to patients); (ii) basic nursing; (iii) treatment procedures; (iv) special nursing; and (v) miscellaneous (including

putting theory into practice, teamwork and flexibility). Under each section student nurses are graded A to D (from excellent to unsatisfactory) and a final assessment is made with a marking in one of six categories from 'very good' to 'unsatisfactory'. The student signs the form and indicates that the report has been discussed with him or her and that an opportunity has been given to express his or her views on it (the report does not say whether the student agrees with it). The complete form is reproduced in the paper.

ANCILLARY STAFF

341. WILLIAMS, A. P. O. and others. **The recruitment and retention of hospital ancillary staff: final report to the Department of Health and Social Security.** London, City University, Graduate Business Centre, 1977. xviii, 205pp.

The research outlined in this report had three objectives: (i) to explore the problems in recruiting and keeping ancillary staff; (ii) to use the results to change the situation in a number of hospitals; and (iii) to assess the practical value of the research methods and findings to other hospitals in the London area. It was found that 80 per cent of new staff stayed less than 18 months and sick leave averaged 17 days per person per years in one hospital and 26 days in another. Despite these figures a survey found most ancillary staff claimed to like their job but four problems were identified: (i) lack of induction and training; (ii) poor conditions of work; (iii) feelings of low status; and (iv) lack of promotion prospects. Individual departments experienced difficulty with supervision, a bonus scheme, relief work, weekend working and communications. The researchers suggest the following solutions: (i) more training; (ii) better staff facilities; (iii) creation of a central personnel department; (iv) dropping the incentive bonus scheme; (v) job restructuring; and (vi) siting of new hospitals closer to potential recruitment areas.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 304, 306, 422, 441, 442

342. MASON, S. A. **The multihospital movement defined.** *Public Health Reports*, Washington, D.C., 1979, Sept./Oct., vol. 94, no. 5, pp. 446-453.

The author describes the growing trend in the United States towards shared hospital services and other multi-hospital arrangements. Such arrangements may take the following forms: (i) formal affiliation; (ii) shared services; (iii) joint meetings for planning or education; (iv) corporate ownership but separate management; or (v) integrated ownership and management. In 1978, 84.4 per cent of general hospitals in the United States had at least one shared service. The 10 most commonly shared services, six of them administrative, are listed. Most 'for profit' hospitals are in shared systems, many of which are investor-owned. The author discusses the advantages and disadvantages of the multi-hospital system under four heads: (i) economy; (ii) quality; (iii) accessibility; and (iv) power. As it is difficult to estimate the management implications of the various multi-hospital arrangements, several organizational models have been developed to help categorize them. Four such models are described. More study is needed to determine whether multi-hospital systems are cost-effective, and which size of hospital can benefit most.

343. GARBER, A. B., SPARKS, L. R. and KORNGOLD, A. J. **Hospital crisis management: a casebook.** Germantown, Md., Aspen Systems Corporation, 1978. xi, 172pp. bibliog. ISBN 0 89443 079 3.

Each chapter presents a number of case studies with alternative responses from management. Before the case studies a brief section of guidance is given but no response is indicated as the 'correct' one. The chapters cover such topics as leadership, motivation, communication, unions, finance, and dealing with the board of directors. A short bibliography and subject index are provided.

HOSPITAL ARCHIVES

344. GOSSELIN, R. Regroupement des spécialités médicales selon leurs interdépendances: un nouveau rôle pour le service des archives? **[Grouping of specialties according to their interrelationships: a new role for the archives department?]** *Administration Hospitalière et Sociale*, Montreal, 1979, Sept./Oct., vol. 25, no. 5, pp. 34-38, 40-42.

The author defines the usual role of the Records Department as evaluation, co-ordination, monitoring of the content of the medical records by quantitative and qualitative analysis, and the production, publication, and interpretation of medical and administrative statistics. He suggests that the Department should also use the information available to it to quantify the interdependence of and inter-relations between units and specialties within the hospital. The diagnosis and treatment of a complex case will involve the participation of more departments and specialties than a simple one; this can be demonstrated and quantified from the statistics, in particular if the MED-ECHO computer system is used. The author illustrates his argument with eight diagrams; one of these quantifies requests from different units for angioradiology, another shows transfers of patients between medical specialties, and a third shows transfers to and from the cardiology out-patient department.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 316, 362, 415, 420, 426, 436

345. ROWE, G. and TREMBLAY, K. **Multi-unit systems—a means to an end.** *Health Care*, Don Mills, Ont., 1979, Dec., vol. 21, no. 12, pp. 13-15.

Multi-unit arrangements in hospitals are an economic way of improving the quality and comprehensiveness of care. In Canada there are seven levels at which these multi-unit systems may operate. Firstly, formal affiliation expresses itself in voluntary discussions generally leading to some form of shared services (level two), normally limited to housekeeping and maintenance. Centralized services, such as group purchasing and regional co-ordination of specialties, represent the third level of the system. The fourth level, contract management of a group of hospitals, has barely started in Canada. Leasing and contract arrangements for services and equipment exist in most hospitals and are not a shared system as such. Level six is corporate ownership of a hospital system with each hospital retaining its independent administration; many

Canadian religious hospitals are run like this. The final level of the multi-unit arrangement is that of complete ownership and governance by a corporate identity. Facilities are usually arranged as: (i) hospital chains; (ii) hospital holding companies; (iii) mergers and consolidations; and (iv) satellite and branch operations.

346. FLESHER, D. L. **Finding inefficiencies: an operations audit model.** *Hospital and Health Services Administration*, Chicago, Ill., 1979, vol. 24, no. 4, pp. 46-66.

With the rising cost of medical care, it is essential that hospitals be operated as efficiently as possible. There are many problems in determining the effectiveness of hospital management, so it seems only appropriate that operations auditing would be a major contribution. An operations (or systems) audit is a non-financial audit of all aspects of an organization to locate inefficiencies by actually observing the operations of the business. This paper describes a complete operations audit model for a small general hospital, which has two stages: preliminary and in-depth. It is primarily concerned with the preliminary stage which comprises four basic steps: a tour on foot of the facility; acquisition of written data; interviews with management staff; and certain financial analysis work. The results are summarized in a preliminary audit report commonly called a survey memorandum. An in-depth examination is only performed for those departments in which serious problems appear to exist.

347. MATZICK, K. J. and KLICKA, K. S. **The movement toward multi-hospital arrangements in Michigan.** *Hospital and Health Services Administration*, Chicago, Ill., 1979, vol. 24, no. 4, pp. 88-96.

In an environment of projected bed reductions, some hospitals want to maximize their position, others are merely trying to survive. A planning strategy that appears to accommodate both of these postures may be found in the movement toward multi-hospital systems or arrangements. In 1978, the Michigan Hospital Association Task Force on Multi-Hospital Arrangements undertook a study aimed at determining why hospitals are engaging in these arrangements, why they choose a particular arrangement, and how effective these arrangements are in accomplishing their objectives. The impressions gained were that the arrangements made are carefully conceived and planned, and generally successful in achieving the established objectives. Despite the lack of sufficient hard data, it appears there is much to be gained through a hospital participating in a multi-hospital arrangement.

BED OCCUPANCY, ECONOMIC USE OF BEDS

348. MCEWIN, R. and RING, I. **Factors affecting health services usage.** Adelaide, S.A., Australian College of Medical Administrators, 1979. 14pp.

A number of factors other than strictly medical ones appear to influence hospital admission. Amongst the factors identified in this Australian study are: (i) age and sex; (ii) urban/rural status; and (iii) aboriginal or non-aboriginal status. The higher use of acute beds in country areas, for instance, can be explained by the lack of support facilities such as community health services or nursing homes. By a more sophisticated

interpretation of statistics it is hoped to improve allocation of resources. The authors also stress that data must be collected from all institutions—public and private, general and psychiatric hospitals, and nursing homes.

349. STUDNICKI, J. **Differences in length of hospital stay for Medicaid and Blue Cross patients and the effect of intensity of services.** *Public Health Reports*, Washington, D.C., 1979, Sept./Oct., vol. 94, no. 5, pp. 438-445.

Information obtained from 43 acute care hospitals in Maryland concerning 20 diagnostic groups indicated that the average length of stay for Medicaid patients was 10.76 days and for Blue Cross patients, 8.30 days. The difference in length of stay tends to be greater for diagnoses requiring longer stays and generating high costs. Length of stay differences are generally linked to differences of intensity of care, that is, the quantity of care provided per patient day. However, the longer stays for Medicaid patients were not always accompanied by lower intensity of care and higher intensity of care was associated with low occupancy rates rather than differences in length of stay. Hospitals which depended more upon Medicaid as a source of income tended to show greater differences in lengths of stay between Medicaid and Blue Cross patients. Although further research is needed, this study suggests that levels of care intensity and lengths of stay are associated with financial necessity.

ELECTRONIC DATA PROCESSING

See also Abstract Nos. 312, 323, 357, 417, 418, 438

350. MICHIE, D. and TOWNSEND, H. R. A. **The medical potential of microelectronics.** Edinburgh, Machine Intelligence Research Unit, University of Edinburgh, 1979. [i], 29 columns. (Experimental Programming Reports No. 34) £1.50.

Three categories of use for computers in medicine are identified. Their use for control of medical devices is long established and well documented. The second area is the use of computers as an aid to diagnosis, potentially tied in with home computers, this category is somewhat speculative and is not dealt with in much detail. The last category is the main growth area and is discussed at length; it is the use of computers in conventional health care for information storage and retrieval.

351. BALK, T. **When you want a quick answer, ask a computer.** *Health and Social Service Journal*, London, 1980, Jan. 18, vol. 90, pp. 84-87.

Since the inception of the National Health Service, the Department of Health and Social Security (and previously the Ministry of Health) has required health authorities to submit details of staff employed and the manual preparation of these had a number of drawbacks. Since September 1977 the South East Thames Regional Health Authority has provided information on the majority of its staff direct to the DHSS on magnetic tapes from its computerized payroll system. A by-product of this process has been the quarterly production of a 'manpower sub-file' containing data on staff employed in the region, from which reports are produced and distributed to managers. Also, using a

terminal to the regional computer, ad hoc reports have been produced from the sub-file by statistics department staff for individual managers at regional, area and district levels. Examples of reports are reproduced. The scheme covers all staff, except medical and dental staff.

LIBRARIES

352. BOND, S., STEPHENSON, J. and WALLACE, E. **Information workshops for nurses: a report of an evaluative pilot study.** Newcastle-upon-Tyne, Newcastle-upon-Tyne Polytechnic, 1979. 50pp.

The information explosion and expansion of research have important implications for nurses. The Briggs Committee on Nursing advocated ensuring that every nurse and midwife can use a library adequately and many writers have recognized that library training is vital. The study presented, however, showed many nurses were unable to use a library and had no knowledge of the sources of information available or how to exploit them. Educators are criticized for their failure in this area and the following topics are suggested for courses: sources of information; comparing information in documents; extracting information from documents; preparing and writing reports; using libraries; and using information in practice.

ORGANIZATION AND METHODS, WORK STUDY

See Abstract Nos. 321, 346

MEDICAL RECORDS

See also Abstract Nos. 344, 434

353. PRYOR, L. R. and FREEMAN, V. D. **An archival system for clinical laboratory data.** *American Journal of Clinical Pathology*, Chicago, Ill., 1979, Dec., vol. 72, no. 6, pp. 1013-1017.

Clinical laboratory records have to be retained in easily accessible form to meet legal requirements, and to aid research and quality control. A magnetic tape-based archival system that provides computer-output microfiche has been developed in the Clinical Laboratory, University of Arkansas Medical Sciences Campus, Little Rock. The laboratory has a turnkey computer system used in conjunction with the central DEC PDP-12/20 computer. All completed test results can be transferred from the turnkey laboratory system to archive tapes, with redundant copies. Human intervention is required essentially only to carry the tapes between machines and to verify that all has gone well. Rapid retrieval for single patient test results can be had via computer-output microfiche. More comprehensive searches to provide machine-readable files can be had via the retrieval package. In addition to these advantages, there are efficiencies associated with elimination of manual filing problems and opportunities for enhancement of patient care through analysis of a significant data base.

354. PETRIE, J. C. and MCINTYRE, N., editors. **The problem orientated medical record (POMR): its use in hospitals, general practice and medical education.** Edinburgh, London, Churchill Livingstone, 1979. ix, 210pp. £7.00

This book reflects the growing interest in the Problem-Oriented Medical Record (POMR) and more widespread recognition of its potential for improving the quality of care given to patients. Problems can arise for individuals applying POMR in hospitals and in general practice, and the authors hope that their experience and their emphasis on practical points will help the implementation of POMR. The educational aspects and potential of POMR are discussed and there is a further chapter on computerization, including the development and operation of the Problem Oriented Medical Information System (PROMIS).

355. FRICKHINGER-BREITHAUPT, A. Das Kardex-Informations-und-Übergabesystem. **[The Kardex information and distribution system.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, Dec., no. 12, pp. 648-651.

The author describes the format and components of the Kardex information system and its application in a Berlin hospital. Areas on the cards are reserved specifically for items such as nursing history, nursing plan, nursing reports, laboratory investigations, drugs required, temperature, injections, etc. and each entry is signed and dated. Colour-coded markers are attached to the cards for easier identification—for example, dark red for information from the doctor for the ward sister, gold for diabetic patients, and orange for diet. The author examines the advantages and disadvantages of the system; in her opinion the former outweigh the latter since when all the data relating to a patient are contained within a single information system, then improved, systematic, and continuous nursing, improved communication at all levels, and a saving of time result.

356. LANG, G. S. and DICKIE, K. J. **The practice-oriented medical record.** Germantown, Md., Aspen Systems Corporation, 1978. xx, 287pp. ISBN 0 89443 032 7.

Practice-oriented medical records are intended to provide data for quality assurance programs, financial reporting and patient information systems. Medical staff have always kept patient records, and these have been developed into methods such as problem-oriented medical records (POMR). The authors, however, consider that a doctor's function extends beyond collecting information directly relevant to patient care. Practice-oriented records are a management tool, often combined with computerized information systems.

357. MCNEILL, D. G. **Developing the complete computer-based information system.** *Journal of Nursing Administration*, Wakefield, Mass., 1979, Nov., vol. 9, no. 11, pp. 34-46.

The problem-oriented medical information system (PROMIS) has been developed to deal with all aspects of care, using as its framework the problem-oriented medical record. It has been in actual use in a unit at the Medical Center Hospital of Vermont since 1970. The system uses large, structured electronic files of patient-related data and medical information. The logical structures of the PROMIS computer displays are

based on four phases of medical action in the form of a feedback loop characteristic of the problem-oriented record, they are: gathering the data base; formulating the problem list; formulating initial plans for each problem; and recording progress notes by problem. The paper outlines the goals of the system, their realization, the implementation of the system, and discusses the experience gained with it.

HOSPITAL STATISTICS

See Abstract Nos. 304, 351

PUBLIC RELATIONS

358. SUTULA, D. A. **How to evaluate a PR program.** *Hospitals*, Chicago, Ill., 1979, Dec. 16, vol. 53, no. 24, pp. 101, 102, 104, 106.

A hospital public relations (PR) department must understand the objectives of the hospital as a whole before evaluating its own effectiveness in communicating these objectives to the public. Evaluation when undertaken can be formal or informal and may include: (i) a questionnaire to hospital users; (ii) a readership survey of hospital publications; and (iii) surveys of employee and community attitudes. Studies show that the public do not think well of the hospital's efforts at communication and this should inspire PR departments to improve matters, for example, by giving information about fees and various treatment, or by producing a regular community publication. Some surveys reveal a desire for health education programmes, for example, on various aspects of preventive medicine. Any PR programme must be flexible enough to adapt to a community's changing needs and interests.

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION, ETHICS

See also Abstract Nos. 347, 405

359. ORRISS, H. **The no-fault principle.** *Health and Social Service Journal*, London, 1980, Feb. 1, vol. 90, pp. 146, 147.

In Great Britain the number of claims against doctors and health authorities is increasing, though not on the scale of those in the United States. Some problems of the present law are outlined. The Royal Commission on Civil Liability and Compensation for Personal Injury reluctantly concluded that it could not recommend any change in the law. It recommended a special no-fault scheme for road injuries, but rejected, for the time being, the type of comprehensive no-fault schemes available in New Zealand and Sweden. Under these casualties of medical negligence receive compensation without being required to show that someone was at fault. What has not been fully acknowledged is the wide disparity in 'compensation' from all sources and especially the state. A particular plea is made for a review of the present policy as it affects handicapped children.

360. SCHWEGEL, K. **Physicians join in efforts to reduce risks.** *Hospital Medical Staff*, Chicago, Ill., 1979, Nov., vol. 8, no. 11, pp. 2-8.

The combined risk management and quality control systems in four United States hospitals are described. The Quality Surveillance Program at the San Jose Hospital and Health Center, Calif., attempts to monitor every aspect of patient care by means of a quality control committee consisting of representatives from all types of hospital staff. A monthly reporting system identifies incidents involving patients, and physicians are reprimanded when necessary. The programme at Halifax Hospital Medical Center, Daytona Beach, Fl., is co-ordinated by a risk manager and various committees of medical staff are involved in the inquiries into incidents. The risk management committee at Kettering Medical Center, set up in 1978, has prevented many threatened legal suits. The smaller 84-bed hospital in Chester, Ill., has also solved problems by similar methods. All these schemes encourage medical staff to participate in comprehensive risk reduction by means of improved communication.

361. WOODYARD, J. **The case for negligence.** *Spectator*, London, 1980, Jan. 19, vol. 244, pp. 15, 16.

The increasing number of medical negligence claims in recent years have resulted from: (i) an apparent confusion between what constitutes negligence and what is an error of judgment; (ii) the greater complexity of medical and surgical procedures being carried out; and (iii) a more impersonal health service. Defence societies, like the Medical Defence Union, pay damages when negligence is proved, but the National Health Service may sometimes have to share the cost. Fear of negligence claims has led to the practice of defensive medicine, that is, an obsession with investigation of patients, especially in the United States. If the trend towards almost automatic no-fault compensation is to be acceded to in this country, a very different arrangement for funding will be required. Alternatively, the traditional definition of negligence should be more clearly distinguished from the accidental risks involved in modern medicine and surgery. The medical profession for its part must train its members to the highest ethical and technical standards.

FINANCE AND ACCOUNTING

FINANCE

See also Abstract Nos. 349, 403

362. TINTURIER, G. Les problèmes de l'allocation des ressources hospitalières. **[Problems of the allocation of hospital resources.]** *Veska*, Aarau, 1979, Dec., vol. 43, no. 12, pp. 711-714.

In Switzerland the State is becoming increasingly involved in the funding of health care and the author outlines trends in this direction in the Canton of Vaud. If the State is to be involved in this way, then it must have the resources with which to plan and

control development. It must be able to intervene in the financing mechanisms so as to control and, if necessary, restrain overall growth in expenditure. It will then be able to ensure that the resources are correctly apportioned between the different sectors of health care and co-ordinate the health sector with other sectors of State social policy and the economy as a whole. It is proposed that a global amount for hospital investment and running costs will be determined each year and allocated to establishments, 'in the public interest'. Decisions can be based on resources available, previous results, and factors such as the rate of inflation, which will affect costs. The overall amount will be allocated between establishments as a function of their capacity. Not all the information on which the Canton can base this distribution of funds is available and a great deal of research and analysis is still required in this direction. More fundamentally, since allocation is only an instrument in the service of health policy, what the State—and, therefore, the community—must determine is a coherent health policy.

363. DILLON, R. D. **Zero-base budgeting for health care institutions.** Germantown, Md., London, Aspen Systems Corporation, 1979. ix, 256pp. ISBN 0 89443 150 1.

Zero-based budgeting (ZBB) is a formalized procedure for establishing the costs and benefits of proposals and evaluating them against each other. Rather than update the previous year's expenditure or act on guesswork, hospital management can question every function, the assumption is that no expenditure is accepted unless justified. A huge effort at the lower levels of management is required to introduce ZBB since it involves analyzing and costing every function. A clear explanation, with examples, is given of ZBB in practice.

364. HODGES, C. **Holding its own and saving the NHS money.** *Pulse*, London, 1980, Feb. 9, pp. 12, 13.

The Harwich and District GP Hospital, Dovercourt, has 33 beds and a 10-bed maternity unit. Nine general practitioners from the adjoining health centre and another local doctor run the hospital, with the help of a senior hospital officer. In the last 20 years the local community of 22,000 people has given the hospital over £100,000, including a £30,000 extension completed last year. Major fund-raisers for the hospital are the Fellowship for the Sick, a charitable group equivalent to a league of friends but undertaking additional charitable work within the community. A 24-hour casualty service is provided by the general practitioners. A general practitioner surgeon has an operating list once a week, but emergencies have to go to the district general hospital at Colchester. The total identification of the hospital with the community is stressed.

COSTS

See also Abstract Nos. 367, 397

365. MADDEN, R. C. and others. **Cost containment in an Australian teaching hospital.** *Community Health Studies*, Adelaide, 1979, Oct., vol. 3, no. 3, pp. 173-180.

The Prince Henry, Prince of Wales and Eastern Suburbs Group of Hospitals, Sydney, N.S.W., contains 1,350 beds; they are the teaching hospitals of the University

of New South Wales. In 1975-1976 the group had the highest bed day cost in New South Wales, bed use was declining and cost and staff levels were increasing. As a result of reviews of the situation a number of cost containment measures were introduced including bed use review, Christmas ward closures, reduction in relief staff, reduction in overtime payments, use of taxis instead of ambulances, and review of new unit expenditures. The financial swings achieved are summarized. Long-term cost containment exercises include reporting of pathology and radiology use and improvements in cost accounting. The need for budget flexibility as an incentive to cost containment is stressed. It has been shown that significant economies can be achieved in the short run, without affecting services and without revolutionary changes in organization, by reallocation of resources, scrutiny of existing practices and conscious cost saving measures.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

366. Department of Health and Social Security. Catering and Dietetic Branch. **Health service catering: hospital meal survey.** DHSS, Catering and Dietetic Branch, [1980]. 49pp.

The British National Health Service spends £120 million on catering each year so a study has been conducted into the present pattern of breakfast provision and the pattern of meals for the remainder of the day where continental breakfasts only were provided. Only two per cent of English hospitals provided nothing but continental breakfasts, whilst another 14 per cent provided something less than a full traditional breakfast. Patient preferences were found to be heavily in favour of full cooked breakfast—seventy per cent of those given a choice chose a traditional meal. Where light breakfasts only were served sufficient protein and energy were provided by other meals but there appeared to be no saving in food costs. Recommendations include: (i) better communication between wards and central kitchens, with better supervision, to reduce waste; (ii) more choice for patients to reduce plate waste; (iii) new catering techniques; and (iv) cafeteria services in psychiatric hospitals.

367. Bloch, J. W. **Food buying undergoes great changes.** *Hospitals*, Chicago, Ill., 1979, Nov. 1, vol. 53, no. 21, pp. 143-146.

Group purchasing is one item which reduces costs in food buying. The Joint Purchasing Corporation buys in about 40 groups of foods for 130 institutions in the New York City area, including the Montefiore Hospital and Medical Center. Group purchasing also saves time normally spent in surveying markets, testing samples and obtaining bids. Prompt payment of bills can result in further reductions. Precise, written specifications are important in ordering and the purchasing department must be included in any type of quality assurance programme developed by the institution. Components of the purchasing scheme to be measured in any assurance programme should include: (i) the obtaining of competitive prices; (ii) the receipt of punctual deliveries; and (iii) checking of products against the specification.

DIETETICS IN THE HOSPITAL

See also Abstract No. 366

368. NEWLAND, P. M. **Therapeutic dietetics since the inception of the national health service.** *Journal of Human Nutrition*, London, 1980, Feb., vol. 34, no. 1, pp. 17-22.

Since the establishment of the National Health Service, changes in both attitude and demand have led to a gradual evolution of the role of the dietitian in the United Kingdom. Originally restricted to meeting the needs of the hospital patient on a special diet, the dietitian is now being given the opportunity not only of acting as dietetic adviser to patients both in and out of hospital, but also of taking an active part in preventive medicine and so reaching members of the general public who are in need of good nutritional advice. Changes in the types of diets prescribed are described in some detail.

KITCHENS

369. NEUMANN, P. Les micro-ondes à l'hôpital: réalité d'aujourd'hui. **[Microwaves in the hospital: a modern innovation.]** *Techniques Hospitalières*, Paris, 1980, Jan., vol. 35, no. 412, pp. 123-128.

A guide for the types of microwave oven currently available in France and suitable for hospital use is prefaced by an illustrated account of the general principles on which this type of oven is based. The wattage of a static microwave oven can range from 600 to 4,000 watts; the wattage plus the load, the starting temperature (−18°C, 0°C, or +3°C), and the type of product to be re-heated determine the speed at which the food will be raised to the required temperature. A table shows the time required, in theory, to raise the temperature of pre-cooked dishes weighing 200, 300, 400, 500, and 1,000 grammes from −18° to +70°, and from +3° to +70°C, in five ovens with a wattage of from 600 to 3,600 watts. A further table gives the actual time required for receptacles containing six to eight portions of 65 different meat and/or vegetable dishes. Methods of distributing the re-heated meals to patients are described in detail. The oven can be either kept permanently in the pantry or be moved along the corridor and plugged into a wall socket outside the patient's room. The author also describes the use of these ovens in staff canteens and points out their value for defrosting deep-frozen meat, vegetables, and fish for immediate use. He also discusses the types of container which should be used for dishes to re-heated, and gives the maximum temperatures for the most popular materials. Two photographs and a diagram of microwave ovens accompany the article.

CANTEENS, STAFF DINING-ROOMS

370. CLIMIE, W. Y. **New kitchen and staff cafeteria at Christchurch Hospital.** *New Zealand Hospital*, Wellington, 1979, Oct., vol. 31, no. 9, pp. 13, 15-17.

A $2.8 million kitchen/cafeteria building has been completed as part of phase one of the redevelopment of Christchurch Hospital. After considering the various options available, it was concluded that the most rational and flexible policy was to retain a fresh food service, complemented by the use of convenience foods. As further advances

are made in the use of frozen and chilled foods making them more acceptable, the 'conventional' kitchens could, if required, be adapted with little difficulty. The distribution and serving system chosen was a centralized tray system, based upon 'Finessa' equipment. Patients select their own meals from varied menus. The new building has goods delivery and services on the lower ground floor; kitchen, including tray service and dishwashing, on the ground floor; and cafeteria and servery on the first floor. The cafeteria seats 360 in the main dining area and 83 in the lounge. Four photographs are included.

HYGIENE IN THE HOSPITAL KITCHEN

See also Abstract No. 384

371. FAURE, P. and BOURRINET, P. Hygiène des cuisines hospitalières. **[Hygiene in hospital kitchens.]** *Techniques Hospitalières*, Paris, 1979, Dec., vol. 34, no. 411, pp. 75-78.

A series of practical recommendations on hygiene in the hospital kitchen has been culled from the rules and recommendations relating to restaurants, schools, and other places where there is catering on a large scale. These recommendations refer to: (i) personal hygiene in kitchen staff, the use of special work clothes, shoes, and gloves; (ii) training programmes; (iii) the general design and organization of the kitchen; and (iv) standards for walls, floors, ceilings, ventilation, lighting, water supply, toilets, dustbins, and the cleaning of kitchen equipment. There is a bibliography of 18 references.

LAUNDRIES AND LINEN SERVICE

See also Abstract No. 338

372. HEMPSHALL, J. **Keeping our linen clean.** *Hospital and Health Services Purchasing*, London, 1979, Dec., pp. 378-380.

Over the next few years the National Health Service must decide upon a plan of capital investment in order to construct new, purpose-built modern laundries able to cope with the work-load, efficient in the use of energy and people, and able to provide the best economic return on investment. The change from natural to synthetic fibres in linen and clothing has brought increasing problems for the laundry manager. The development of personalized clothing systems more suited to smaller units where the turnover and transfer of staff is small, and the fact that patients are now actively encouraged to purchase their own garments has radically changed the situation. The problems of providing an adequate service for outer clothing are discussed. The career structure for NHS laundry managers is outlined.

HOSPITAL DOMESTIC MANAGEMENT

373. NEW SOUTH WALES HOSPITALS PLANNING ADVISORY CENTRE. **Code of practice: disinfection in hospitals; seminar report, 29th and 30th May, 1978.** Sydney, New South Wales Hospitals Planning Advisory Centre, 1978. [iii], 65pp. (Seminar No. 23) ISBN 0 7240 3914 7.

Papers and discussions of a range of subjects relating to a code of disinfection

practice are presented. Subjects covered include: hospital floors; chemical disinfectants; personal hygiene; cleaning; disinfection of equipment; and theatre and critical areas. The penultimate paper gives a detailed account of practice at one particular hospital (St. Vincents) and some of the brand names quoted in various papers are of rather local interest. Most papers, however, give useful and practical information that can be generally applied.

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

374. ASHDOWN, L. R. **Nosocomial infection due to *Pseudomonas pseudomallei*: two cases and an epidemiologic study.** *Reviews of Infectious Diseases*, Chicago, Ill., 1979, Sept./Oct., vol. 1, no. 5, pp. 891-894.

Pseudomonas pseudomallei was recovered from urine specimens of two patients who acquired the organism after they were admitted to a hospital in a region in which it is endemic. Both patients were diabetic and both had urethral catheters passed while they were in hospital. Samples of soil taken from the hospital grounds yielded an isolate of *P. pseudomallei* that was identical biochemically and by antibiogram to the isolates recovered from the patients. The two patients stayed in wards located in separate hospital blocks, which were geographically distinct but connected by a walkway. The relevant clinical histories of the two patients and the epidemiological and microbiological characteristics of the *P. pseudomallei* isolates were studied. These two patients are considered to represent the first reported cases of hospital-acquired infection due to *P. pseudomallei*.

375. MONTGOMERIE, J. Z. **Epidemiology of *Klebsiella*** and hospital-associated infections. *Reviews of Infectious Diseases*, Chicago, Ill., 1979, Sept./Oct., vol. 1, no. 5, pp. 736-753.

Klebsiella has usually been reviewed as a gram-negative bacillus or has been considered together with *Enterobacter* and *Serratia* species as a member of the tribe Klebsiellae. There is evidence however, that *Klebsiella* has characteristic clinical, pathological, and epidemiological behaviours that warrant a separate review of this genus. This review of the literature covers: Klebsiella infections in hospitals; human colonization; *Klebsiella* in the environment; possible reservoirs and modes of transmission; and control of klebsiella infection. A list of 128 references is included.

376. BODEY, G. P. and RODRIGUEZ, V., editors. **Hospital-associated infections in the compromised host.** New York, Marcel Dekker, 1979. xi, 263pp. (Handbook on Hospital Associated Infections Volume 2) ISBN 0 8247 6785 3. Sw.fr.74

This volume covers the diagnosis and management of infections in the hospital patient, including surgical diagnostic procedures and antibiotic therapy. The underlying mechanisms causing host susceptibility are examined and a description is given of unusual organisms capable of causing infections in patient groups. A separate chapter is devoted to protective isolation and the use of laminar air flow, and another deals with the particular problems of the immunesuppressed patient.

377. LILLY, H. A. and others. **Staphylococcal sepsis in a burns unit.** *Journal of Hygiene*, Cambridge, 1979, Dec., vol. 83, no. 3, pp. 429-435.

An outbreak of staphylococcal sepsis occurred in the burns unit of Birmingham Accident Hospital between January 1976 and May 1978. Many patients and members of staff had boils and 19 patients also developed staphylococcal septicaemia. Most of the boils, particularly in the earlier period of the outbreak, yielded *staphylococcus aureus* resistant to penicillin, tetracycline and erythromycin only (PTE) and were of phage type 95. These characteristics were also obtained from blood cultures, but in the later period other resistance patterns were predominant. Strains from burns were usually multiresistant and of phage types 29/77, but early in the outbreak many strains in burns were PTE resistant and of phage type 95. This outbreak of a variety rare in the unit was therefore caused by the phage type 95 but as time went by other staphylococci developed to cause clinical infection. These probably received their virulence from the original strain, phage type 95.

SOURCES OF INFECTION

378. BAIRD, R. M. and others. **Microbial contamination of topical medicaments used in the treatment and prevention of pressure sores.** *Journal of Hygiene*, Cambridge, 1979, Dec., vol. 83, no. 3, pp. 445-450.

Topical medicaments used in the treatment and prevention of pressure sores in patients in three hospitals were examined for *pseudonomas aeruginosa* and *staphylococcus aureus* contamination. Creams used in hospitals A and B were supplied in large pots for use by several patients, while those in hospital C were supplied in tubes for individual use. The rates of contamination of the pots and the patients' skin sites are described. Nursing staff at hospitals A and B removed the cream from the pots with bare hands and did not always wash between patients. The medications packed in small containers, as used at hospital C, were less likely to be contaminated. Also, medications were applied to patients using a spatula and the nurses wore disposable gloves. As a result of this study it is suggested that medications should: (i) be made under controlled environmental conditions; and (ii) be supplied in small containers for the use of individual patients.

379. HENNING, C. and others. **Comparison of *Staphylococcus aureus* carriage and skin infection rates in hospital and office employees.** *Journal of Hygiene*, Cambridge, 1979, Dec., vol. 83, no. 3, pp. 437-444.

The incidence of *staphylococcus aureus* in the nose, throat and superficial wound infections of 99 office staff, 129 psychiatric staff and 115 surgical staff in Sundsvall, Sweden, was studied during four weeks to assess the risk to hospital staff of staphylococcus infection. The results were analyzed both with regard to the carriage rates and with the occurrence of individual strains of *staphylococcus aureus* in the three groups of subjects. Incidence rates were similar in all groups, but differences in the ecology of the staphylococcal phage types were observed between one group and another. Throat carriage rates were high and surgical staff carried a greater variety of strains. The results indicated that staphylococcal carriage is due more to individual characteristics than to environmental factors. However, continued surveillance of staff and patients is necessary to keep infection risk to a minimum.

PREVENTION AND CONTROL

See also Abstract Nos. 373, 412, 413

380. HAZALEUS, R. E. **Assessing antibiotic usage in a community hospital.** *Hospital Medical Staff*, Chicago, Ill., 1979, Nov., vol. 8, no. 11, pp. 24-28.

In view of their resistance to certain strains of bacteria, a study of the prescribing pattern of the aminoglycosides group of antibiotics was carried out at a community teaching hospital. A total of 108 adult patients and five children received 127 courses of aminoglycoside therapy. There was evidence of infection in 83 courses of therapy and an indication in 115 courses. Data from the study were presented to the hospital infection control committee and it was recommended that patients receiving aminoglycosides should have: (i) a culture of a suspected infection site; (ii) kidney function and blood levels monitored; (iii) the dosage regulated according to kidney function; and (iv) therapy discontinued after seven to 10 days. The reason for prescribing an aminoglycoside should be included in the patient's progress notes. These recommendations are now standard medical practice in the hospital.

381. FAVERO, M. S. and others. **Guidelines for the care of patients hospitalized with viral hepatitis.** *Annals of Internal Medicine*, Philadelphia, Pa., 1979, Dec., vol. 91, no. 6, pp. 872-876.

Traditionally patients admitted to hospital with viral hepatitis have been placed in two categories of isolation: enteric precautions and blood precautions. This strategy was based on the inability to differentiate between hepatitis A and B and on the assumption that faeces and blood from patients with either type might be infective. It is now known that patients with hepatitis A do not pose a problem of disease transmission through direct contact with blood, and although blood of patients with hepatitis B may be infective, the virus is not transmitted by faeces. The enteric route is the principal mode of transmission for hepatitis A, but maximal levels of hepatitis A virus excretion occur before the onset of jaundice. Thus, the main emphasis in caring for patients with viral hepatitis should be towards blood precautions; the same precautions used when handling faeces, urine and excretions from all other hospital patients are appropriate for patients admitted with a diagnosis of hepatitis A. Specific recommendations on precautions are listed.

382. AMERICAN HOSPITAL ASSOCIATION. COMMITTEE ON INFECTIONS WITHIN HOSPITALS. **Infection control in the hospital.** 4th edition. Chicago, Ill., American Hospital Association, 1979. xiii, 242pp. bibliogs. ISBN 0 87258 262 0. $16.25

The American Hospital Association has produced a third edition of this basic work on hospital infections. The main sections deal with the following topics: (i) epidemiology of infection; (ii) general organization of responsibility; (iii) specific responsibilities within hospitals; (iv) prevention and control of infection; and (v) special problems (infected personnel and carriers; hazardous areas and procedures). Each section has a bibliography, and a glossary and index are included. A number of useful figures and tables are provided.

383. FINLAND, M. **Emergence of antibiotic resistance in hospitals, 1935-1975.** *Reviews of Infectious Diseases*, Chicago, Ill., 1979, Jan./Feb., vol. 1, no. 1, pp. 4-22.

The author reviews some of the important changes in the resistance of bacterial pathogens to antibiotics observed mainly in the Boston City Hospital during the last 20 years. Significant developments include the following: (i) the emergence of *streptococcus pneumoniae* with decreased resistance to penicillin and of some strains resistant to several antibiotics; (ii) resistance of *staphylococcus aureus* to many antibiotics between 1950 and 1960, followed by an increased sensitivity associated with changes in phage types; (iii) the emergence of methicillin-resistant *staphylococcus aureus* in certain areas; (iv) an increasing resistance to antibiotics among enterococci; (v) the emergence of methicillin-resistant *neisseria gonorrhoeae* and sulfonamide-resistant *neisseria meningitidis*; (vi) the occurrence of certain strains of *haemophilus influenzae* resistant to chloramphenicol; and (vii) the occurrence of chloramphenicol-resistant *salmonella typhi* in Vietnam and Mexico. A marked general characteristic was the difference in degrees of resistance in common pathogens to the antibiotics most commonly used in different geographical areas. Intensive use of antibiotics encourages the growth and spread of resistant pathogens. There are 108 references appended to this paper.

384. HARVEY, R. W. S., PRICE, T. H. and JOYNSON, D. H. M. **Salmonella isolation from hospital areas.** *Journal of Hygiene*, Cambridge, 1979, Dec., vol. 83, no. 3, pp. 461-468.

Samples of foodstuffs from a hospital kitchen, sewer swabs from a paediatric ward and faecal specimens from patients in a special care baby unit and a maternity unit were investigated for the presence of salmonellas. The survey was designed to cause as little interference with daily routines as possible, and the technical aspects of the survey did not strain the laboratory facilities of the two Welsh hospitals taking part. Despite the appearance of a certain amount of salmonella in some samples of all the types tested, an outbreak of salmonella infection did not occur. However, surveillance of areas of the hospital where salmonellas are likely to be found or where the spread of infection could have serious consequences is a worthwhile precaution.

385. INAMOTO, H. and others. **Dialyzing room disinfection with ultra-violet irradiation.** *Journal of Dialysis*, New York, 1979, vol. 3, no. 2/3, pp. 191-205.

In Saiseikei Central Hospital, Tokyo, 15-watt ultra-violet lamps have been installed on the ceiling for every 13.5 sq.m. in order to cut down infection in the dialysis room. These lamps are used for 16 hours every night when the room is no longer in use. The results indicate that bacteria were killed by 10 hours irradiation even in the areas of low ultra-violet irradiation, where the irradiation may not be direct. When only half the lamps were turned on the bacteriocidal effect was not sufficient in some areas. Recommendations for the effective disinfection of dialyzing rooms as a result of using the ultra-violet lamps include: (i) use of as many lamps as possible; (ii) irradiation for sufficient time to ensure effectiveness; (iii) avoidance pools of water in the room or machine; and (iv) reduction of gross contamination by changing shoes or gowns, and washing the floor daily. The advantages of using this system are safety, ease of use and the negligible cost.

AIR HYGIENE

See Abstract No. 427

DISPOSAL OF WASTE

See Abstract No. 317

SAFETY MEASURES

ELECTRICAL ACCIDENTS

386. LIVENSON, A. R. **Electrical equipment in medical institutions and problems of safety.** *Biomedical Engineering*, New York, 1979, Sept., pp. 4-8.

The safety of the patient and the medical staff is dependent upon a proper level of electrical safety and standards have been devised for the electrical safety of medical technological equipment. As a result equipment is being produced to meet these standards. Yet from the standpoint of guaranteeing the safety of patients and staff the electrical equipment in hospitals has substantial limitations. This paper, translated from the original Russian, analyses these limitations. The most important measures that must be taken to improve electrical safety are: (i) use of a five-wire power supply having a separate (fifth) ground wire; (ii) use of ground wires with a cross-section sufficient to reduce a 'touchable' voltage to 25V under emergency conditions; (iii) provision in rooms for heart catheterization of added protective measures—potential equalization and an insulated power supply system; and (iv) use of plugs and sockets of a single type (with flat or cylindical contours).

FIRES AND FIRE PREVENTION

387. NELSON, H. E. and SHIBE, A. J. **A system for fire safety evaluation of health care facilities: final report.** Springfield, Va., National Technical Information Service, 1978. Various pagination. (NBSIR 78-1555)

Three major elements govern fire risk: (i) occupancy risk—the number of people affected and their ability to take care of themselves; (ii) building safety features; and (iii) safety redundancy. Safety redundancy is in-depth protection, through simultaneous use of alternative safety precautions such as containment, extinguishment and evacuation. Fire safety systems should ensure that failure of a single protection device or method will not result in a major failure of the whole system. The evaluation methodology is intended to gauge both overall safety and the degree to which requirements are redundant.

PLANNING FOR MASS EMERGENCIES

388. SAVAGE, P. E. A. **Disasters: hospital planning; a manual for doctors, nurses and administrators.** Oxford, Pergamon, 1979. xi, 142pp. bibliog. ISBN 0 08 024913 2. £4.00

This book deals with the organizational arrangements suitable for a district general hospital. The first part outlines the theoretical aspects of disaster planning, while the

second part details a disaster manual for a district general hospital. Management at the disaster site, the care of the critically injured and the circumstances of nuclear warfare have not been included. Much of the information is based on the author's personal experience.

THE PATIENT

ADMISSION AND RECEPTION

See also Abstract No. 428

389. ERATH-VOGT, A., BÖCK, D. and KÖHLE, K. Das Erstgespräch der Schwester mit dem Patienten. **[The initial discussion between nurse and patient.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, Feb., vol. 33, no. 2, supplement; pp. 1-11.

The initial discussion between nurse and patient on the latter's admission to a ward has two objectives: (i) to initiate a productive emotional relationship with the nurse which will be strengthened and built up during the patient's stay; and (ii) to enable the nurse, and the ward team, to determine a nursing diagnosis, a nursing objective and so a nursing plan. A detailed description of the techniques to be used and a check list of questions is given. There are also a number of actual examples of such discussions, which show how they help to clear up the patient's misunderstandings and fears and set his mind at rest.

WELFARE OF THE PATIENT

See also Abstract Nos. 407, 429, 431, 439, 446

390. HUGHES, D. **Doctor-patient communication in the cardiology clinic: final report.** Swansea, University College of Swansea, Medical Sociology Research Centre, 1979. [i], 31pp.

The awarding of a medical degree is no indication of interviewing skill or communicative ability. The study shows that patients have considerable difficulties in giving descriptions of their conditions and in understanding what the doctors say to them. It is suggested that simple instructional models of the heart or schematic diagrams would help cardiology consultants. Over-reassurance by doctors is put forward as one reason for patients failing to follow treatment regimes. Other deficiencies highlighted are: (i) use of leading questions; (ii) failure to offer opportunities to patients to elaborate; (iii) lack of explanation; and (iv) departure from a logical sequencing of questions.

391. HAXHE, J. J. and others. L'hôpital évalué par les malades: facteur d'humanisation. **[The hospital evaluated by its patients: the human factor.]** *Techniques Hospitalières*, Paris, 1979, Dec., vol. 34, no. 411, pp. 49-55.

Patients in the St. Luke University Clinics in Brussels are given a questionnaire when they leave. This contains questions on the quality of service in the admissions department, the comfort, maintenance, and quietness of the patient's room, the quality of nursing care, meals and visiting hours, and general impressions. There is space for

remarks and comments. In the year 1976-1977, 34 per cent of patients completed the questionnaire and their responses were favourable in 85 to 97 per cent of cases. The responses were processed and analyzed by computer on a monthly and annual basis. The questionnaire and the accompanying letter to the patient are reproduced here; there are also four tables of monthly results for a department, and one table which summarizes all the responses for a whole year.

392. ROSENBERG, K. **Human experimentation.** *Health/PAC Bulletin*, New York, 1979, nos. 81/82, pp. 2, 43-47.

Medical research inevitably involves human experimentation in order to extend the boundaries of scientific knowledge. At a bare minimum, no experiment should be designed to do deliberate harm to a patient or be initiated until after appropriate animal experiments have been completed. If there are unpleasant consequences, the patient should be informed and given a chance to discontinue his/her participation. Most importantly, no one should ever be used as a research subject without having given conscious and knowing consent. One out of eight papers published by members of a speciality faculty in four New York City medical schools showed frequent violations of these standards. Four examples are cited which involved inconveniences for the patients and outcomes which were counter therapeutic. In other cases, animal studies were not completed before human experimentation began and there was failure to give enough information for informed consent. Ethical review by peers, publishers, institutional review boards, or patient advocates is regarded as unsatisfactory. Reviewing the published work of researchers may offer an alternative solution.

VOLUNTARY SERVICE, VOLUNTARY WORKERS

See also Abstract No. 443

393. WARREN, J. W. and CLARK, M. D. **Workshops enhance role of volunteers.** *Hospitals*, Chicago, Ill., 1979, Dec. 16, vol. 53, no. 24, pp. 91, 92.

A series of educational workshops at the Rush-Presbyterian-St. Luke's Medical Center, Chicago, enabled volunteers to understand their role in helping patients and their families. Administrators supported the scheme because volunteers learned about the role of the providers of patient care at little cost to the hospital. Causes of patient anxiety and the long term effects of illness were among subjects dealt with in the programme. Workshop sessions, led by members of the College of Nursing, created a climate of co-operation between staff and volunteers, who numbered 20 at each session. Volunteers filled up an evaluation form at the end of the session and a follow-up survey was conducted some time later. They found the workshops very helpful and the workshop leaders praised their enthusiasm and gained help from the forms in planning future programmes. The scheme is being extended to hospitals affiliated to the medical centre.

HOSPITAL SOCIAL WORK

394. Seelsorge und Patient. **[Ministering to hospital patients.]** *Veska*, Aarau, 1979, Dec., vol. 43, no. 12, pp. 697, 698, 705, 708.

Four short articles are presented on the role of the hospital chaplain. It is stressed

that he should have a strong sense of commitment to his task and should find satisfaction in his daily contacts with the patients. The chaplain must be available at all times, be willing to work as a member of a team, be sensitive to the needs of difficult patients, be ecumenical in his thinking, lend support to the healthy as well as to the sick, and provide encouragement and advice where these are needed.

TRANSPORT OF PATIENTS

395. INGHAM, M. and BENNETT, O. **Efficiency first but a rethink is the answer.** *Health and Social Service Journal*, London, 1980, Jan. 18, vol. 90, pp. 91-92.

Lincolnshire Area Health Authority has two districts, both sparsely populated and with poor public transport. The hospital services are centred on two hospitals. The problems of providing transport for out-patients in the area are outlined. Following the success of a zoning system for geriatric day hospital patients in the City of Lincoln, a system for zoning the hospital out-patient appointment times of all patients requiring ambulance transport was developed. The zones were related to the distance from the satellite ambulance stations and from the hospital, taking full note of normal driving conditions. Patients from zones furthest from the hospital are scheduled for the earlier appointments. A zoning directory for use by the medical records appointment staff was introduced with the location of each patient's home determining the time of the appointment. After operating successfully at Lincoln City Hospital for a year, the system is to be extended to the other main hospitals in 1980.

HOSPITAL CARE

See also Abstract Nos. 329, 359, 360, 378, 381, 389, 391, 432, 433, 440, 447

396. HUCZYNSKI, A. A. **Practical issues in the implementation of nursing management audit.** *Nursing Times*, London, 1980, Feb. 7, vol. 76, no. 6, occasional papers; pp. 13-16.

The Doncaster Nursing Management Audit (NMA) is now a well-known innovation which seeks to evaluate nursing management performance. Its existence has stimulated the development of numerous audit schemes tailored to the needs of nursing staff in different institutions and geographical areas. This paper, which is based on the results of a project to evaluate NMA in the Blackpool district, focuses on the problems of audit implementation and acceptance. It is argued that senior nursing staff who wish to introduce audit into their organizations must consider a number of key factors, including: (i) the need to clarify one's objectives for introducing audit; (ii) gaining the commitment and support of the nurses who will be involved; (iii) establishing communication systems to provide adequate and regular feedback to staff; (iv) clarifying the relationship of the audit scheme to the staff appraisal system, if the latter is already in operation; and (v) committing oneself to a programme of education for staff to help them fully understand the purpose of the audit scheme.

397. KENNEL, K. Zukunftsaspekte des Krankenhauswesens in der Schweiz. **[Future aspects of hospital affairs in Switzerland.]** *Veska*, Aarau, 1979, Dec., vol. 43, no. 12, pp. 687-689.

Swiss hospitals, the author believes, must learn to control and limit their costs:

50 per cent of all spending on health is devoted to hospitals and these are used by only five to 10 per cent of patients. Hospitals should introduce a system of analytical accounting; they should also consider how they can provide a more 'humane' and personal service for their patients. With a falling birth rate and a rising percentage of elderly people in the population, staff shortages in hospitals will become more acute; measures must be taken to encourage the return to the nursing profession of women who retire on marriage, and the possibilities of training older women should be explored. Finally, there must be more co-operation between the different areas and Cantons.

398. HOFFMANN, H. Der Pflegestandard—Stufen der Pflegequalität. **[The nursing standard—degrees of quality of nursing.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, Dec., vol. 32, no. 12, pp. 644-648.

The quality of nursing care is one of the main elements which determines whether the recognized objectives of the hospital, the recovery of the patient, work satisfaction for the staff, a good training system, and sound medical research, are achieved. The establishment of nursing standards is a tool to help to achieve this. Nursing standards cover both dangerous aspects (the patient has bed-sores, is given the wrong drugs, suffers stress or regression, and there is no nursing plan) and optimal ones (the patient is motivated and rehabilitated, factors which favour his progress are recognized and considered, he is encouraged to use his initiative and is involved in nursing decisions). The author suggests that the patient should be given a role in assessing quality of care, and lists the following areas concerning which his views should be sought: admission, reception, care, nursing and treatment, information and instruction, and problems.

399. JANSEN, H., LJUNGKVIST, G. and WELANDER, G. Värdering av medicinska metoder—planering och uppläggning. **[Evaluation of medical methods: planning and organization.]** Stockholm, Spri, 1979. 124pp. bibliog. (Spri Rapport 19; Projekt 3048)

Evaluation of medical methods includes, amongst other things, evaluation of clinical care and treatment in both in-patient and out-patient services. Diagnostic and therapeutic methods are evaluated by systematically attempting to measure and evaluate the results of care and treatment, in relation to resource input or by comparing alternative methods. In the form of a checklist this report offers advice and instructions on how to plan and organize method evaluation studies.

400. REINKE, E. Krankenhausorientierte Krankenpflege. **[Hospital orientated nursing.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, Dec., vol. 32, no. 12, pp. 642-644.

The problem of hospital-oriented nursing is examined from the point of view of (i) the patient and (ii) the nurse. Many patients feel that hospital staff are more interested in the patient's illness than in restoring a fellow human being to health. Technology and specialization are the determining factors in hospital activity today and the patient's psychological welfare is often neglected. Because the treatment of disease has become so technical, nurses have to some extent had to become technicians; this has led to loss of contact with the patient and, at times, to a failure in communication. In addition,

there is now a rapid turnover of patients. Although nursing and treatment are inseparable, they are distinct, and the author calls for radical changes in thinking on the role of the nurse not only in the hospital, where she is sometimes regarded simply as the doctor's assistant, but also in the wider context of the development of health and the prevention of illness.

401. DUNCAN, A. **Quality assurance: what now and where next?** *British Medical Journal*, London, 1980, Feb. 2, vol. 280, pp. 300-302.

In 1976 the Nuffield Provincial Hospitals Trust published a series of essays entitled *A question of quality? Roads to assurance in medical care*. As a follow-up the author was invited to ascertain, in an informal and personal way, the extent and range of current activities. The initial approach, reported here, was to national bodies including the royal colleges. Despite numerous local initiatives and an increasing number of publications there has been very slow movement in general attitudes over the past years, and there are still those who believe that if you create a standard, however high, you stultify innovation and interfere with clinical autonomy. There is now a need for the development of more formalized methods of quality assurance by the Royal Colleges along with the universities and the General Medical Council.

TERMINAL CARE

402. BARTON, D., editor. **Dying and death: a clinical guide to caregivers.** Baltimore, Md., Williams & Wilkins, 1977. xvii, 238pp. ISBN 0 683 00440 9. $14.95

Caring is a crucial factor in terminal treatment; part one of this book gives an overview of basic material and an approach to caring for dying patients and their families. Part two of the book consists of a number of contributions from people representing various care giving disciplines, and includes contributions from two patients. References are given at the end of each chapter and there is a subject index.

403. HODGES, L.W. **Third-party payment and treatment of the dying patient.** *Ethics in Science and Medicine*, Oxford, 1979, vol. 6, no. 4, pp. 223-228.

The financing of health care in the United States has altered over the last 30 to 40 years. Third party payment through health insurance was grafted into an existing private fee-for service method of payment, and enabled larger sums to be channelled into health care than earlier systems of financing would allow. The absence of a national policy for allocation of resources has allowed the treatment of the terminally ill as well as other patients to proceed without serious regard to cost. The Government will, in the immediate future become the primary third-party payer. Pressures for cost containment will require more careful allocation of health dollars and the establishment of a national health policy. As a result there will be a need for closer examination of moral issues in medicine, especially those involving terminal illness.

404. COHEN, K. P. **Hospice: prescription for terminal care.** Germantown, Md., London, Aspen Systems Corporation, 1979. xi, 302pp. bibliog. ISBN 0 89443 151 x.

American interest in provision of terminal care has generated a number of recent publications. This book is fairly comprehensive and covers some wider issues such as

the right to die. The early chapters give some historical background and a consideration of attitudes towards death. The middle chapters compare hospice care with hospitals and nursing homes and include consideration of relative costs and the medical insurance implications. The last chapters contain general discussion and predictions, plus a chapter on legislation. A glossary and index are provided along with a list of hospices and organizations in Britain, Canada and the U.S.A.

405. CHURCHILL, L. R. **Interpretations of dying: ethical implications for patient care.** *Ethics in Science and Medicine*, Oxford, 1979, vol. 6, no. 4, pp. 211-222.

There are major discrepancies between the way physicians think about diseases and the way patients perceive their illnesses; these differences may influence patient care, sometimes adversely. Two models for interpreting the experience of illness are contrasted. The thesis of Elizabeth Kubler-Ross that the dying pass through stages is challenged in terms of its status as a quasi-medical model. A rigid use of the stage model by health professionals, or members of the family, constitutes control of the dying, and denies their freedom of choice. The narrative quality of the experiences of the dying alters the approach to two conventional moral issues: truth-telling and the appropriateness of further treatment. Emphasis should be upon what the dying tell us, and upon whether further intervention can fit into the patient's interpretation of the illness.

HOME CARE, AFTER-CARE

406. PRITCHARD, M. A. **A concept of continuing care.** *Nursing Times*, London, 1980, Jan. 24, vol. 76, no. 4, pp. 169-172.

The author has been liaison nursing officer at West Suffolk Hospital, Bury St. Edmunds, since June 1976. She is responsible for the transfer of information between the hospital and community staff to ensure an effective switch of nursing care from hospital to the patient's home. The information required includes personal details and, in the event of the death of a patient, thought is given to the bereaved family. In addition, three health visitors spend part of their week in the hospital, each has liaison responsibilities for either geriatrics, psychiatry or diabetes. The work in midwifery, paediatric liaison, the out-patient department, ophthalmology, discharge, bereavement and health education are outlined. The use made of the home circumstances report is described and an example illustrated.

SPECIAL DEPARTMENTS

WARDS

407. ROBERTS, A. C. M. **A survey of patients' attitudes to mixed wards in Brook General Hospital, Greenwich HD.** [Croydon], South East Thames Regional Health Authority, Management Services Division, 1979. [i], 24pp. (78/25-1)

Mixed-sex wards were originally introduced for the benefit of psychiatric patients but their administrative convenience has now been appreciated by general hospitals. This study showed that preconceived apprehensions of mixed wards were sometimes

dispelled by actual experience of such a ward. In all types of wards patients find certain causes of embarrassment, particularly when confined to bed; this became more acute in mixed wards and tended to increase with age. Placement of patients in segregated bays or cubicles was found to be an efficient way of maintaining privacy and was so effective that large numbers of patients believed themselves to be in single-sex wards. Separate toilet and washing facilities were needed and all patients indicated a wish to wash in private.

PHARMACY

See also Abstract No. 380

408. ALLWOOD, M. C. and FELL, J. T., editors. **Textbook of hospital pharmacy.** Oxford, Blackwell Scientific, 1980. xi, 491pp. bibliogs. ISBN 0632 00631 5. £12.00

The basic training of pharmacists provides a theoretical background, this book attempts to relate that background to the practical expertise needed in the hospital pharmacy. Major sections deal with manufacture, drug information services, drug analysis and quality control, training, ward and clinically related pharmacy, organization and management. The largest section is on production of medicines and it, like the other chapters, can be read in isolation. Four of the chapters relate to the organization of the health service in Great Britain, giving useful descriptions of funding and administrative structure. Some of the other chapters also give information only applicable in Britain.

409. COZ, J. Y., OLLIVIER, R. and CREACH, L. Une pharmacie hospitalière à un tournant de son évolution. **[A hospital pharmacy at a turning point in its development.]** *Techniques Hospitalières*, Paris, 1979, Dec., vol. 34, no. 411, pp. 57-59.

Following alterations and extensions to Treguier Hospital and an increase in its capacity from 407 to 580 beds, the pharmacy was transferred to a new building and new administrative arrangements established. Responsibility for stock management and stock accounts was devolved from management to the pharmacy. Supplies are distributed twice weekly to departments and a handbook of the drugs in stock has been prepared for the medical staff. The advantages and disadvantages of the new arrangements are briefly discussed. The department dislikes the pharmacy's primary control of what they use, and the pharmacy staff feel that control damages their relations with departments. The chief pharmacist has suggested that there should be a pharmacist in each department to prepare prescriptions and act as a technical adviser; there is a possibility that this suggestion will be put to the test in a pilot study in one department only.

410. IVEY, M. F. and SMITH, G. H. **A 'mini-residency' in drug information for the practicing pharmacist.** *Drug Intelligence and Clinical Pharmacy*, Hamilton, Ill., 1979, Oct., vol. 13, no. 10, pp. 603-607.

Drug information services have been in existence for about 15 years, but pharmacists who qualified several years ago have not had the advantage of receiving formal education in information retrieval systems and drug literature evaluation. To help such pharmacists, 'mini-residences' in drug information services were sponsored by the

University of Washington School of Pharmacy in August of 1976, 1977 and 1978. Each mini-residency covered a two-week period (a total of 80 hours) and was divided into teaching and experimental sessions. The first week covered: introduction to drug information; retrieval systems; literature evaluation; and regional services. The second week was designed to be flexible in order to meet the professional needs of the individual residents. In general, the residents reported positive feelings about the experience they gained during the mini-residency. All of the participants indicated that they would recommend the residency to other practising pharmacists.

411. **Survey of part-time pharmacists.** *Pharmaceutical Journal*, London, 1980, Jan. 12, vol. 224, pp. 44-45.

In late 1978, the Pharmaceutical Society of Great Britain undertook a survey of pharmacists employed part-time to amplify the information obtained in its 1978 manpower survey. Different age and sex groups were sampled with different intensities related to the number of part-time pharmacists in them. Of 1,720 questionnaires sent out, 1,555 (94 per cent) were completed. The survey provided an estimate of 4,569 part-time pharmacists, 1,996 (44 per cent) male and 2,573 (56 per cent) female. There were almost identical percentages for the sex and age groups within the normal range of sampling variation. About 90 per cent of the males and 75 per cent of the females were in general practice, reflecting the excess of female part-timers in the hospital service. Hours worked indicate that the part-timers are equivalent to about 1,725 full-time equivalents. Details are also given of hours worked by age, sex and general practice/hospital.

412. LATORRACA, R. and MARTINS, R. **Surveillance of antibiotic use in a community hospital.** *Journal of the American Medical Association*, Chicago, Ill., 1979, Dec. 7, vol. 242, no. 23, pp. 2585-2587.

An ongoing system of antibiotic surveillance was initiated at Trinity Memorial Hospital, Cudahy, Wis., in August 1977; since December 1977 every case admitted to the hospital has been reviewed. The system was based on the series of 18 guidelines prepared by the Veterans Administration Ad Hoc Interdisciplinary Advisory Committee on Antimicrobial Drug Usage. Criteria for diagnosing infections were first established. Individual charts of discharged patients are reviewed and data summarized on infection surveillance data forms which are illustrated. The statistics derived from these are reviewed monthly by the infections committee and forwarded to each department for peer review. The surveillance has been accepted by the medical staff and has proved to be cost-effective and educational. A changing pattern of antimicrobial drug use has been recognized, that has resulted in decreased antimicrobial drug costs.

413. SCHOLLENBERG, E. and ALBRITTON, W. L. **Antibiotic misuse in a pediatric teaching hospital.** *Canadian Medical Association Journal*, Ottawa, Ont., 1980, Jan. 12, vol. 122, no. 1, pp. 49-52.

All antibiotic orders for in-patients received in the pharmacy at the 204-bed Children's Hospital of Winnipeg during December 1978 were studied after completion of therapy. A total of 188 courses of therapy were evaluated with respect to choice of antibiotic, dosage and necessity of treatment. Errors in therapy were noted in 30 per cent of medical orders and 63 per cent of surgical orders. The most frequent error, unnecessary

therapy, was found in 13 and 45 per cent of the medical and surgical orders respectively. Error rates were highest for the most frequently ordered antibiotics, notably the penicillins. The magnitude of the problem appeared to be similar to that previously reported from general and adult hospitals. The difficulties with solutions such as educational programmes and compulsory consultation are discussed.

414. **Automated pharmacy unit dosage system improves patient care, reduces costs.** *Southern Hospitals*, Greenville, S.C., 1979, Sept./Oct., vol. 47, no. 5, pp. 8-10.

The automated pharmacy unit dosage distribution system at the 265-bed Weirton Medical Center went on-line late in 1977. It uses the NCR 8250 data processing system. On admission patient data is entered through an MCR 796 data display terminal. Drug orders can be entered for any patient. The system creates: a 24-hour fill list at 1500 for use the following day; between 700 and 1,000 plastic drug envelopes and labels for intravenous bottles for the regular fill; catch-up fill lists throughout the day; daily patient profiles; current patient census; drug use report; calculations for patients' charges; inventory lists; price lists; and a formulary listing. An inquiry facility is also provided. The system has not only improved pharmacy management, but also enabled the value of the pharmacy inventory to be reduced by £55,000 within six months.

LABORATORIES

See also Abstract No. 353

415. COLE, G. W. **Maximizing the efficiency of an admissions test profile in a 680-bed hospital.** *Clinical Chemistry*, Washington, D.C., 1980, vol. 26, no. 1, pp. 46-50.

Conflicts exist between clinicians, administrators and laboratory staff on the use of laboratory services. The purpose of this paper is to show that the problem in at least one hospital and its laboratory has been solved, primarily through a hospital admission test profile and a complete redesign of the hospital laboratory system. Several operational research studies and the review of 1,000 medical records were used in the development of the 32-test profile. Although multitest instruments were as costly as multiple single-test instruments, they resulted in considerable staff savings. The laboratory physician reviews each profile, making comments and suggestions to help the clinician understand the meaning of unasked-for results. Most of the instruments are linked to a central computer and, after verification by the technologist, are available simultaneously at the care unit terminal. Overall costs of laboratory operation increased by only eight per cent in the two years immediately after introduction of the admission-test profiles, although the total number of tests nearly doubled.

416. TAYLOR, R. B. **Laboratory services contribute to living longer, and healthier.** *Lab World*, Philadelphia, Pa., 1979, Dec., vol. 30, no. 12, pp. 16-18, 23.

Controversy concerning the value of periodic health screening persists. A particular problem is its use for elderly people. This paper examines this problem and makes out the case for screening in those over 55 years of age. The outcomes of successful health screening of the older individual will be noted on three levels: (i) the direct effect of

screening—an increased awareness of health risk and the detection of early disease trends; (ii) intermediate effects—changes in life-style and health occurring as a result of screening and feedback; and (iii) long-term effects—reduced morbidity and mortality resulting from life-style changes and active medical intervention.

417. LUPOVITCH, A., MEMMINGER, J. J. and CORR, R. M. **Manual and computerized cumulative reporting systems for the clinical microbiology laboratory.** *American Journal of Clinical Pathology*, Philadelphia, Pa., 1979, Nov., vol. 72, no. 5, pp. 841-847.

The clinical microbiology laboratory at Holy Cross Hospital, Detroit, Michigan, has had increasingly complex specimens to analyze. A manual and computerized system to produce cumulative updated reports was set up to meet three requirements: (i) the large amount of descriptive and alphabetic data; (ii) the need for frequent updating; and (iii) the need for interim status reports. The report formats and updating sequences are nearly identical so that one system can easily replace or back up the other. The cost and complexity of the hardware and software are modest, and are consequently useful for a small hospital laboratory processing fewer than 10,000 specimens per year. The improved quality of reporting based on these types of systems can now be available to all laboratories without regard to size or workload.

BLOOD TRANSFUSION DEPARTMENT

418. JENKINS, J., editor. **Machine readable labels in the blood transfusion service: proceedings of a symposium held on June 13th, 1979.** Lancaster, MTP Press, 1980. [iii], 99pp. ISBN 0 85200 344 7. £8.95

Most transfusion accidents that occur today are the result of organizational or transcription errors. The new system explained at the symposium uses sample identification techniques in blood grouping machines linked with the use of light pens and microprocessors; the system also lends itself to full computerization with blood bank inventory control by machine. In addition to the British papers there is a description of the methods used by the New York Blood Centre and the principles laid down by the American Committee for Commonality in Blood Bank Automation.

419. COHEN, M. A. and others. **An overview of a hierarchy of planning models for regional blood bank management.** *Transfusion*, Philadelphia, Pa., 1979, Sept./Oct., vol. 19, no. 5, pp. 526-534.

This paper reviews the results of extensive research in blood bank management in the Chicago area. It was directed particularly towards analyzing comprehensive managerial policies for blood bank systems ranging from local hospital transfusion services to regional blood centres. Operational research techniques were applied to parts of the blood service. From analysis of the data, a mathematical response function was developed for such processes as demand forecasting, requirements computation, crossmatch and recycle control at each level of the hierarchy in a regional system. These processes in independent hospital blood banks are contrasted with those in hospital blood banks and transfusion services which are dependent on central blood banks. An example is presented of a model useful in the planning of a regional system.

Implementation of these hierarchical models can reduce outdating, size of inventories and shortages. In central banks, the models can minimize shipment quantities, determine optimal trans-shipments and the most efficient routing.

DIAGNOSTIC X-RAY DEPARTMENT

See also Abstract No. 312

420. HAINES, A. P. and others. **The use of barium meals by general practitioners and hospital doctors.** *Journal of the Royal College of General Practitioners*, London, 1980, Feb., vol. 30, no. 211, pp. 97-100.

Barium meal examinations constitute a considerable work load in radiology departments. A random sample of the records of patients having barium meal examinations at Northwick Park Hospital was reviewed. In both males and females, there was no significant difference in the proportions of abnormalities between referrals from hospital doctors and from general practitioners. The study does not suggest that any reduction of direct access by general practitioners for barium meal examinations for their patients is necessary in the interests of economy.

DEPARTMENTS FOR SPECIAL THERAPY

See Abstract Nos. 377, 385

INTENSIVE CARE UNITS

See also Abstract No. 439

421. MCALISTER, E. **Managing an intensive care unit.** *Nursing Focus*, London, 1979, Oct., vol. 1, no. 2, pp. 67-69.

The Royal Victoria Hospital, Belfast, is a major accident centre for Northern Ireland and patients are received into the 12-bedded intensive care unit from hospitals throughout the Province. The layout of the unit is adequate, and although storage space is short, essential equipment is always accessible and ready for use. Patients need close observation and usually require support of vital functions. Charts used include a comprehensive plan of care for each patient, a 24-hour observation chart and a large fluid balance chart. Nurses are encouraged to talk to anxious relatives and adopt a personal approach to patients whether they are conscious or not. The need for a one nurse per patient ratio means that the unit is a staffing priority and reciprocal staff arrangements help to build up relationships with other wards. Student nurses benefit from experience in the unit in the latter stages of their training. The need to give the highest standards of care provides a constant challenge to the nurse in charge.

SPECIALIZED HOSPITALS AND UNITS

OUT-PATIENT

See Abstract Nos. 390, 395, 435

CASUALTY AND ACCIDENT

See also Abstract No. 430

422. JENKINS, A. L., editor. **Emergency department organization and management.** 2nd edition. Associate editor: John H. Van de Leuv. Saint Louis, Mo., C. V. Mosby, 1978. xiii, 333pp. bibliogs. ISBN 0 8016 0122 3.

This is the second edition of a book prepared under the editorial guidance of the Hospital Committee of the American College of Emergency Physicians, [see *Hospital Abstracts* vol. 16, no. 1655]. Three new chapters have been included on: quality control through clinical audit, prehospital care, and legal aspects. Some of the chapters on staff and the one on emergency department design have been re-written. Appendices give standards, and a suggested set of rules and regulations. A subject index is provided.

423. PEPPIATT, R. **Patients' use of GPs or accident and emergency departments.** *Practitioner*, London, 1980, Jan., vol. 224, no. 1339, pp. 11-14.

One way of exploring the problem of patients with non-urgent conditions attending casualty departments is to study those patients. An alternative approach is to determine where general practitioners expect their patients to go. In the study reported here a questionnaire was sent to each general practitioner in the Exeter Health District. In addition to questions on their practices, the practitioners were asked where they expected their patients to go with 19 specific complaints, inside and outside surgery hours: to their own general practitioners; to the district general hospital; or elsewhere. Replies were received from 127 of the 146 general practitioners. As expected, they considered that patients with three potentially serious conditions should go directly to hospital: fractures, head injury with loss of consciousness, and overdose. For all other complaints, more than 81 per cent of doctors felt the patients should contact them at their surgery or at the community hospital. The study therefore supports earlier conclusions that patients underestimate the willingness of their general practitioners to treat minor trauma.

424. CALNAN, M. **Pathways to the accident and emergency department: report of a study of the use made by patients of an accident and emergency department.** Canterbury, Health Services Research Unit, University of Kent, 1979. viii, 268pp. bibliog. (H.S.R.U. Report No. 38)

A random sample of attenders at the accident and emergency department of Kent and Canterbury Hospital was studied over one year. The objective was to identify characteristics of the caseload, the manner they came to the department and the relationship between various factors and the patients' initial choice of medical care system. The typical case was found to be one of an injury at home and the patient being brought by ambulance without any attempt to contact a G.P. Using medical classifications only 50 per cent of patients could be classified as appropriate attenders and under 60 per cent defined their own case as being an emergency. There is some scope, therefore, for educating patients in the use of appropriate medical resources.

DAY HOSPITALS

See also Abstract Nos. 448, 449

425. ARAGO, I. El hospital geriátrico de día según el modelo del Servicio Nacional de Salud en Gran Bretaña. **[Geriatric day hospitals on the model of the British National Health Service.]** *Estudios sobre Hospitales*, Barcelona, 1979, no. 96, pp. 15-21.

On the basis of information obtained from England, the author describes the NHS model of a geriatric day hospital (GDH). The GDH is attached to a general hospital or to a geriatric hospital and is designed to help elderly incapacitated patients to return to an independent existence as soon as possible, to release beds for acute cases, to ensure that the patient is followed up by the medical staff until he is self-sufficient, to encourage family participation and co-operation, and to avoid endemic chronic illness in the elderly. Patients who attend a GDH are: (i) those who require physical rehabilitation or maintenance (cerebrovascular accidents, degenerative rheumatism, etc.); (ii) specialist rehabilitation (Parkinson's disease, emphysema); (iii) re-education and support for everyday activities; (iv) minor psychiatric rehabilitation; or (v) special health care which cannot be given at home and does not justify in-patient treatment (varicose ulcers, ventilation therapy). The services provided in the GDH are: (i) physical rehabilitation; (ii) occupational therapy (educational, recreational, work therapy, activities of daily life, social activities); (iii) additional services such as chiropody, dental care, hairdressing, cafeteria, etc; and (iv) clinical monitoring and nursing care. A typical day's programme in a GDH is outlined and the numbers and categories of staff required for a 50-place GDH are given. Approximately one 50-place GDH is required for every 20,000 inhabitants. This means that 180 GDH's will be needed in Madrid alone.

426. RUCKLEY, C. V. and others. **The community nurse and day surgery.** *Nursing Times*, London, 1980, Feb. 7, vol. 76, no. 6, pp. 255, 256.

In a study at Western General Hospital, Edinburgh, 360 patients who underwent surgery were randomly divided into three different levels of post-operative care: 48 hours in an acute surgical ward, 48 hours in a convalescent ward or direct discharge home on the day of operation to the care of a community nurse and general practitioner. There was no significant difference between the groups in respect of recovery, but day care had clear economic advantages and received the highest favourable comment from the patients themselves. A questionnaire survey of the community nurses revealed that: (i) only 25 per cent thought that there was a significant increase in work load; (ii) although part of the increase was the pre-operative visit, 86 per cent of the nurses favoured this; (iii) 24 per cent offered instances of faults in communication; (iv) 95 per cent were happy to assume the added responsibility of care of the patient in the early post-operative period; (v) only 14 per cent expressed adverse criticisms; (vi) 84 per cent of the nurses thought that support from the general practitioners was satisfactory and 92 per cent thought that from hospital staff was satisfactory; (vii) the majority of nurses thought that day care had advantages for the patient, his relatives and the nurses; and (viii) 82 per cent of the nurses would be happy to undergo day surgery.

INFECTIOUS DISEASES AND ISOLATION

427. RHAME, F. S. **Inappropriate federal requirements for air control in hospital isolation rooms.** *Journal of the American Medical Association*, Chicago, Ill., 1979, Nov. 2, vol. 242, no. 18, pp. 1971-1972.

Federal hospital construction standards call for all isolation rooms to be of a single type—with an anteroom and with both the isolation room and its anteroom maintained at equal air pressure with relation to adjacent areas. This fails to recognize that modern isolation strategy involves several different isolation states. Revised requirements should encourage the building of isolation rooms with negative air pressure and anterooms. Isolation rooms with no special air control and no anteroom should be permitted when it can be assured that they will be used for providing only enteric or wound and skin precautions. Hospitals should be permitted to provide protective isolation in positive air pressure rooms or rooms with no special air control. If isolation rooms are to be built providing for all types of isolation, three types should be permitted: (i) anteroom at negative pressure in relation to both isolation room and corridor; (ii) isolation room at negative pressure in relation to anteroom and corridor; and (iii) isolation room and anteroom at even pressure in relation to corridor.

CHILDREN

See also Abstract No. 413

428. RITCHIE, J. A. **Preparation of toddlers and preschool children for hospital procedures.** *Canadian Nurse*, Ottawa, 1979, Dec., vol. 75, no. 11, pp. 30-32.

The preparation of a child for a time in hospital will obviously be affected by the time available and the child's age, but must never be neglected. Parents should be helped to prepare their child and where possible should be with him during the hospital procedure. The use of play is helpful, even after the experience is over. The older toddler's ability to speak makes preparation easier, but the use of unfamiliar words should be avoided. The older child's understanding can be clarified by verbal explanations, books and outline drawings of the body. The use of play both before and after the event is usually most helpful when not obviously directed by an adult. Over-preparation should be avoided, as this may overwhelm the child and cause anxiety.

429. KEUTH, U. Maximal liberalisierte Besuchsregelung in der Kinderklinik. **[Unrestricted visiting in the children's clinic.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, vol. 32, no. 12, pp. 673-675.

The standard arguments against unrestricted visiting by parents to their sick children in hospital include: fears that they will introduce infection, interfere with treatment, disrupt the doctors' and nurses' timetables, feed their child the wrong food at the wrong time, and spoil him; a sick child requires absolute quiet; and not all children can have visitors. The author examines each argument in turn and disposes of it. He describes his experience in a *Land* Children's Hospital where there is unrestricted visiting for parents and extols the advantages of this system. In addition, arrangements can

sometimes be made for the child's mother to live-in, and no charge is made for this when it is medically advisable. Frequency of visiting in the spring and summer was 90 per cent and in wintry weather 81 per cent.

430. GRAY, C. **Children's hospital provides round-the-clock specialist emergency service.** *Canadian Medical Association Journal*, Ottawa, Ont., 1980, Jan. 12, vol. 122, no. 1, pp. 93, 94, 98.

The 300-bed Children's Hospital of Eastern Ontario staffs its emergency department with full-time specialists 24 hours a day. The six staff paediatricians work 12-hour shifts, three days on and two days off. There is double coverage on the evening shift—the busiest time. The head of emergency services helps out at peak periods, but concentrates mainly on administration and planning the teaching programme. The department sees an average of 4,000 patients a month; of 2,057 children treated in a 10-day period, 2.2 per cent were emergency cases, 63.3 per cent were urgent and 34.5 per cent were not urgent. Facilities include six examination rooms, a resuscitation room, plaster room, nine-bed holding unit, eye and ear room, minor trauma room and three operating rooms. Although the hospital accepts children up to the age of 18, nearly half the arrivals are under five. All arrivals are seen by a triage nurse. Accidental injuries account for 53.8 per cent of visits.

431. FASSLER, D. **Preparing the young child for hospitalization.** *Hospital Forum*, San Francisco, Calif., 1979, Nov./Dec., vol. 12, no. 7, pp. 5–7.

Until the 1950s little attention was given to the emotional needs of children admitted to hospital. Most hospitals have now adapted their policies to provide children with increased amounts of emotional support. Despite these improvements, the hospital experience remains difficult and confusing for many young children. This is due, in part, to the wide variety of internal fears and misconceptions each child has about hospital and medical procedures. Parents, teachers and other caring adults can help to make a period in hospital less threatening and traumatic by attempting to view the situation from the child's perspective, understanding the related and often confusing emotions, and providing an environment conducive to questions and discussions.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 416, 425, 448

432. WELLS, T. L. **Problems in geriatric nursing care: a study of nurses' problems in care of old people in hospitals.** Edinburgh, London, Churchill Livingstone, 1980. xii, 158pp. bibliog. ISBN 0 443 01939 8. £4.95

This study is aimed primarily at geriatric nurses to enable them to fully understand the problems involved in nursing their patients. The psychological effects for an elderly patient first admitted to hospital and the challenges presented are discussed. The need for a pleasant environment and a personal interest taken by nurses is emphasized. Three important qualities necessary for geriatric nurses to overcome these problems are given: (i) the nurse must be a sympathetic and concerned human being; (ii) a trained nurse with a background as a geriatric ward sister is preferred; and

(iii) additional training in, and an understanding of, the scientific method and approach to research is desirable. More knowledge should be sought about geriatric nursing, this can be achieved by experiment, research and teaching.

CANCER

433. BLOOM, J. R. **Team care: solution for hospital oncology units?** *Health Care Management Review*, Germantown, Md., 1979, vol. 4, no. 4, pp. 23-30.

Team care has been advocated by the Association of Community Cancer Centers as a method of improving care in cancer departments of community hospitals. Before adopting the team concept, serious consideration of the problems that arise during implementation is in order. Current cancer care is first considered from the points of view of organizational arrangements, provision of care, and patient-provider relationship. Cancer team care is usually multidisciplinary and two forms are currently found in the community hospital: the floating team, and the unit team. If team care is adopted, the need for total commitment to the concept is emphasized.

434. WORLD HEALTH ORGANIZATION. **WHO handbook for reporting results of cancer treatment.** Geneva, WHO, 1979. 45pp. (Offset Publication No. 48) ISBN 92 4 170048 3. Sw.fr.6

This handbook is the result of two meetings held on the standardization of reporting results of cancer treatment in Turin in 1977 and in Brussels in 1979. The development of a 'common language' to describe cancer treatment and the resultant agreement on internationally acceptable general principles for evaluating data are outlined. The handbook is in seven sections: introduction; baseline data; reporting of treatment; toxic effects; reporting of response; reporting of recurrence and disease-free interval; and determination of results of therapy. A list of references is included together with a list of participants in the Turin and Brussels meetings on the standardization of reporting results of cancer treatment.

CARDIOLOGY

See Abstract No. 390

UROLOGY

See Abstract No. 385

SURGERY

See also Abstract No. 426

435. GRUBB, R. D. and ONDOV, G. **Planning ambulatory surgery facilities.** St. Louis, Mo., London, C. V. Mosby, 1979. xv, 198pp. bibliog. ISBN 0 8016 1986 6. $17.95

Out-patient and day surgery is increasingly popular as a means of treating more patients. A framework for planning the department is described, as are the American

standards. There are, in addition, chapters on budgets, scheduling, personnel, education, ancillary services, equipment, ethics and the emotional aspects of surgery. A bibliography and subject index are provided.

436. DEVLIN, B. **Time for the economist and the surgeon to rub shoulders.** *Health and Social Service Journal*, London, 1980, Jan. 11, vol. 90, pp. 48-51.

Economics are impinging on surgical practice and surgeons should attempt to estimate the outcome of their operations in three dimensions, the clinical, the social and the economic. At the patient-centred level, surgical intervention must result in improved status, both clinical and social, for the patient. Thus the surgeon must keep up-to-date with current procedures. Diagnostic errors, technical failures and post-operative complications can all increase morbidity and raise costs in terms of prolonged treatment and lengths of stay in hospital. A proliferation of tests and the use of sophisticated medical technology often increases costs without contributing anything to successful diagnosis. The author suggests that surgical decision making would be more economically viable if: (i) surgeons were more aware of the costs of complications; (ii) unit budgets with incentives for clinical terms were introduced; and (iii) surgeons spent less time on administrative work. If surgeons are to spend money wisely, they need more contact with economists and administrators.

MATERNITY

See also Abstract No. 384

437. BARRY, C. N. **Home versus hospital confinement.** *Journal of the Royal College of General Practitioners*, London, 1980, Feb., vol. 30, no. 211, pp. 102-107.

The case for hospital rather than home delivery has been powerfully argued, especially since the report of the Peel Committee in 1970. Nevertheless, evidence from comparison with other countries, notably the Netherlands, suggests that the choice is not necessarily simple. Some general practitioner maternity units are now reporting perinatal mortality rates which are consistently lower than those of specialist units, and recent statistical analyses suggest that the presence of high risk cases in consultant units does not explain this. The only large controlled home-versus-hospital trial did not lead to a significantly lower perinatal mortality rate in the hospital group. The onus of proof in the controversy now seems to lie with those who advocate 100 per cent hospital confinement. A list of 77 references to the literature is included.

438. SEITCHIK, J. and others. **A computer-based obstetric data retrieval system.** *American Journal of Obstetrics and Gynecology*, St. Louis, Mo., 1979, Nov. 1, vol. 135, no. 5, pp. 562-566.

The computer-based obstetric patient data retrieval system described here enables physicians with no prior computer knowledge or experience to access a 'patient data base'. A data base containing 17 variables is completed on each patient discharged from the hospital. Demographic, obstetric, medical, surgical and neonatal information is included. The system permits two separate approaches to the data base: (i) all the information stored on a single patient up to a maximum of 10 admissions may be

obtained for each or all of the patients; or (ii) patients may be grouped by a specific set of characteristics and their data examined. The software programs used are the 'Statistical Package for the Social Sciences'. Advantages of the system are: minimum physician instruction; opportunity to examine material and neonatal outcome of defined diagnostic or therapeutic subsets of the data base; and rapid recall of individual patients' data. Disadvantages are the costs, and inability to interface medical information with hospital business office data.

439. JEFFCOATE, J. A. **Improving communication in a Special Care Baby Unit.** *Early Human Development*, Amsterdam, 1979, Dec., vol. 3, no. 4, pp. 341-344.

As part of a follow-up study of parents of low birth weight babies, it became clear that staff-parent communication had been somewhat haphazard. Subsequently, a purpose-written explanatory booklet of about 3,500 words was produced. The contents of the booklet are outlined. Over a period of some nine months, the nursing staff were asked to give with the booklet a short questionnaire concerning comprehensibility and satisfaction. Completed questionnaires were returned by 73 per cent (30) of parents, all of whom said they understood all the text, did not find the booklet too lengthy, and did not feel that any items should have been left out. All respondents indicated that they found the booklet helpful; in addition 14 (47 per cent) added a positive written comment.

OPHTHALMOLOGY

440. KERSHAW, J. E. M. **The nursing care of ophthalmic patients in general wards.** *Nursing Times*, London, 1980, Feb. 7, vol. 76, no. 6, pp. 234-237.

In addition to the relevant anatomy and physiology, the care of the injured eye and the drugs to be used, this paper discusses the special nursing, psychological and social needs of patients with ophthalmic injuries who are nursed in general wards (this normally occurs when other injuries are present). The nurse needs to acquire the ability to put herself in the patient's place and try to imagine what visual deprivation is, to recognize changes in the patient's mental attitude to his condition, and to listen to and support the patient without raising false hopes. Extra visits, a radio and a tape cassette recorder can help overcome boredom, frustration and anxiety.

PSYCHIATRY

See also Abstract Nos. 313, 338

441. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. WORKING GROUP ON ORGANISATIONAL AND MANAGEMENT PROBLEMS OF MENTAL ILLNESS HOSPITALS. **Report.** (Chairman: T. E. Nodder). DHSS, [1980]. [i], 104pp.

A number of individual cases have highlighted some general problems in British psychiatric hospitals. The special problem of the admission and control of difficult or criminal patients is omitted from this volume. Promises of services to replace mental illness hospitals have not been met and many hospitals are reaching the end of their lifetime; staff problems have also become more pronounced. The emphasis on com-

munity care has not been matched by resources going into such care; nor have alternative resources been put into the psychiatric hospitals. Appendices give management checklists and a model standards document from the Welsh Office.

442. WEINMAN, M. L. and others. **Organizational structure and effectiveness in general hospital psychiatry departments.** *Administration in Mental Health*, New York, 1979, vol. 7, no. 1, pp. 32-42.

The relationship between organizational structure and effectiveness was examined in 33 psychiatry departments in general hospitals in Texas. Data on organizational structure were collected using 23 measures: 16 based on six dimensions of structure existing to some degree in all organizations—specialization, standardization, formalization, centralization, configuration and traditionalism; two appropriate to psychiatry departments; and five on integration. Two indices of effectiveness were pre-designed and submitted to a nationwide panel of mental health experts to determine their practicality. The results indicated that role specialization, centralization, standardization, and mode of conflict resolution were the most important predictors of effectiveness. The implications of these results for the administration of mental health services are discussed.

443. SCOTTISH HEALTH SERVICE. COMMON SERVICES AGENCY. MANAGEMENT EDUCATION AND TRAINING DIVISION and ONE-TO-ONE IN SCOTLAND. **Community participation in hospitals for the long-stay mentally handicapped: study day, Thursday, 1 November 1979.** [Edinburgh], Scottish Health Service, 1979. 16pp.

The aim of this study day was to investigate the practical implications of paragraph 8 from the Report of the Peters Committee, and paragraphs 317 to 319, from volume 1 of the Jay Report [see *Hospital Abstracts* vol. 19, no. 1398], in which the use of volunteers on long-stay hospitals for the mentally handicapped is discussed. Four papers considered: (i) the need for hospitals to recognize and involve the community; the benefits that will accrue, and the improvement in public attitudes; (ii) the viewpoint of the outsider—ignorance and misunderstanding; (iii) getting people interested—recruitment, salesmanship and support; and (iv) practical problems such as disruption of routine, volunteer management and necessary adjustments and flexibility.

444. ROGER, R., LAMONTAGNE, Y. and GAGNON, P.-A. Evaluation de rendement au travail des préposés aux bénéficiaires d'une institution psychiatrique. **[Work evaluation of orderlies in a psychiatric hospital.]** *Administration Hospitalière et Sociale*, Montreal, Quebec, 1979, Nov./Dec., vol. 25, no. 6, pp. 32-34, 36.

Supervisors in a psychiatric hospital in Montreal were asked to rate in order of importance a series of 24 factors which could be used in evaluating the job performance of the orderlies under their control. These factors include punctuality, concern for costs, written and oral communication, and initiative. The factors which the supervisors considered to be most important were: (i) relations with the patient; (ii) interest and motivation; (iii) judgment and tact; (iv) relations with other employees; and (v) adaptability to change. In other words, a good orderly respects the patients, is attentive to their needs, and reacts in an adequate manner to their behaviour. The performance of a random sample of 400 orderlies was then assessed, on a five-point scale, in relation

to these factors. On average the orderlies met the standards set by the supervisors, but 25 per cent did not meet the 'interest and motivation' standard and 15 per cent were below the desired standard for relations with patients or with other employees. Women performed better than men. The findings are presented in four tables, and discussed.

445. FELCE, D., MANSELL, J. and KUSHLICK, A. **Evaluation of locally-based hospital units for the mentally handicapped in Wessex: a comparison of the capital and operating costs of Wessex locally-based hospital units and villas on traditional hospital campuses.** Winchester, Health Care Evaluation Research Team, 1979. [iii], 71pp. bibliog. (Research Report No. 146)

Wessex Regional Health Authority has set up 10 locally-based hospital units for mentally handicapped people rather than continuing the traditional pattern of centralized mental hospitals. This paper reports the capital and revenue costs of the Wessex system compared with the traditional one. A saving of 60 per cent on capital expenditure was estimated for the decentralized scheme since operating theatres, staff recreational facilities, chapels and other items would not be provided. Running costs per patient were, however, shown to be higher in the local units. The research data showed also that with respect to the recruitment and continuity of staff, staff performance, frequency of family contact, patient development and morbidity, the locally-based hospital units were at least as good as or better than existing treatment facilities in Wessex.

446. GOSTIN, L. **In-patient rights.** *Legal Action Group Bulletin*, London, 1980, Jan., pp. 10-14.

This paper sets out the legal position of the informal or detained psychiatric patient within the hospital ward in Great Britain. It is pointed out that a patient's rights cannot be limited unless there is a clear authority under statute or common law. The principal rights discussed are: access to the courts, as provided in section 141 of the Mental Health Act, 1959; and the right to refuse treatment under common law. Valid legal consent comprises three elements: (i) information on the basic nature and effect of the proposed medical procedure; (ii) competency to understand the information and to make a judgment; and (iii) capacity to form a decision without undue influence or coercion. These elements are discussed with particular respect to the psychiatric patient, together with justification for proceeding without consent.

447. ÖSTMAN, O. Dagens psykiatri. **[Psychiatric care.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 10, pp. 572-574.

In the decade from 1967 to 1976, some 10,000 persons were committed to psychiatric institutions. One in eight of the 38,000 beds are in unsatisfactory wards of six beds or more, and many patients are confined to wards of sub-standard quality. The development of psycho-active drugs, with all their limitations, has aided the evolution of psychotherapy, the aim of which is far more rehabilitation-directed than in the past. The number of psychiatrists has increased from 144 in 1960 to 746 in 1978, and other categories of staff have increased similarly. Since 1962 the diagnostic picture for the 119,000 patients discharged a year has changed in several ways. Neurosis, and senility and presenile dementia are nearly unchanged; schizophrenia and affective psychoses have declined; while alcoholic psychosis is up 25 per cent and alcoholism has quad-

rupled in fifteen years. The number of beds per 1000 population varies from 5.4 to 2.5, and the number of psychiatrists varies from two per 100,000 to 15. Out-patient treatment is on the increase at the expense of 24-hour-a-day confinement to an institution, and this trend towards decentralization and out-patient treatment is expected to continue. The article includes graphs and tables.

448. PRIMMER, B. P. **General over-view of psycho-geriatric nursing in assessment units and day hospitals.** Salisbury, Wessex Regional Health Authority, 1979. [iii], 43pp. bibliog.

This study was undertaken to investigate all forms of psycho-geriatric care with special emphasis on psycho-geriatric assessment units, and day hospitals. Information collected will, it is hoped, be used in planning for the proposed psycho-geriatric assessment unit to be built in the Salisbury Health District and for the psycho-geriatric day hospital, part of the Old Manor Hospital in Salisbury. A list was obtained of hospitals having the type of service that the Old Manor Hospital needed; 10 of these were visited, and informal interviews carried out. Many different disciplines were studied to see how their roles inter-related to provide the services required. In conclusion the author is able to put forward several recommendations useful in planning any assessment unit or day hospital.

449. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. **Report of a seminar on day care for the mentally ill, held at National Institute for Social Work on 21 November 1978.** DHSS, [1980]. 53pp.

This is a report of a seminar convened by the Department of Health and Social Security to provide a forum for an exchange of ideas about the development of day care for the mentally ill, with particular reference to the role of social services departments. The papers given by the five speakers are presented, together with summaries of the day's discussions. The subjects discussed were: (i) day hospitals; (ii) the contribution of recent research to the creation of non-institutionalizing environments for the long-term care of chronic disabilities, (iii) day care services; (iv) local authority day care; and (v) the Travelling Day Hospital.

450. KNIGHT, L. **Which way to regional secure units?** *Community Care*, Sutton, 1980, Jan. 24, no. 299, pp. 24-26.

In 1975 the Butler Committee recommended the establishment of regional secure units for mentally abnormal offenders. Despite government support from that time, not a single regional secure unit has been built. This year may see the opening of the first unit, in Wessex region, but only towards the end of the year or the start of 1981 will the first purpose-built unit be opened, in the Northern region. Health authorities cannot cite lack of money or government support, but local opposition to the siting of the units and the far from whole-hearted approach of the medical and nursing professions are real problems. Brief details are given of the situation in each of the 14 health regions.

SUBJECT INDEX

The reference is to the abstract number, not to the page

Admissions, laboratory test profile, 415
  statistics, Australia, 348
After-care, by community nurses, following day surgery, 426
  liaison nursing officer, West Suffolk Hospital, 406
Air conditioning systems, installation and maintenance, 318
Air hygiene, isolation rooms, 427
Ambulance services, for out-patients, zoning systems, 395
Ancillary staff, recruitment and turnover, 341
Antibiotics, misuse, children's hospitals, 413
  resistance of bacterial pathogens, 383
  use, 380
    surveillance, 412
Appointment(s), times, out-patients, zoning, 395

Bacteria, resistance to antibiotics, 383
Barium meal examinations, use, by general practitioners and hospital doctors, 420
Bathing, equipment, design, 319
Baths, design, 319
Beds allocation, Great Britain, 306
Blood banks, machine readable labels, 418
  management, planning models, 419
Budgeting, zero-base method, 363
Building, systems, Capricode, 305
  United Kingdom, history, 310
Burns unit, staphylococcal infection, 377

Cancer, treatment, standardization of reports, 434
Cancer departments, team care, 433
Capricode building system, 305
Casualty departments, Children's Hospital of Eastern Ontario, 430
  non-urgent visits, 423
  organization, 422
  use, analysis, 424
Catering, Christchurch Hospital, 370
  meals survey, Great Britain, 366
  microwave ovens, 369
Chaplains, role, 394
Children, in hospital, preparation for admission, 431
    visiting, 429
    welfare, 431
  preparation for hospital, 428
Children's hospitals, antibiotic misuse, 413
  casualty departments, 430
Communications, with parents, by special care baby units, 439
Community nurses, in after-care, of day surgery, 426
Community services, liaison with West Suffolk Hospital, 406
Computerized tomography, design of unit, 312
Construction, interstitial space concept, 307
Costs, control, 365
    Switzerland, 397
    terminal care, United States, 403
Critical success factors, in planning, 304

Day care, mentally ill, 449
Day hospitals, geriatric, 425
Day nurseries, for children of staff, Great Britain, 328
Day surgery, after-care, by community nurses, 426

Design, bibliography, 308
computerized tomography unit, 312
general hospitals, France, 311
United Kingdom, 305, 310
hospitals for the mentally handicapped, 313
interstitial space concept, 307
Dialysis rooms, disinfection, by ultra-violet irradiation, 385
Dietitians, role, Great Britain, 368
Diets, changes in, Great Britain, 368
Disaster planning, 388
Disinfection, codes of practice, 373
dialysis rooms, by ultra-violet irradiation, 385
Drugs, information service, training, 410

Economies, of surgery, 436
Efficiency, audit, 346
Electrical safety, medical equipment, 386
Electronic data processing, 350
blood banks, 418
clinical microbiological laboratories, 417
laboratories, records, 353
maternity departments, 438
medical records, problem-oriented, 357
nurse scheduling, 323
patient care, 357
pharmacies, 414
staff statistics, 351
unit dose dispensing, 414
Energy, conservation, 309, 316
lifts, 315
Engineering services, 309
Ethics, of human experimentation, 392
terminal care, 405

Finance, allocation, Great Britain, 306
Switzerland, 362
Fire prevention, system evaluation, 387
Food, purchasing, group scheme, 367

General practitioner hospitals, Harwich and District General Practitioner Hospital, 364
General practitioners, direct access to radiology departments, 420
views on use of casualty departments, 423
Geriatric day hospitals, 425
Geriatric patients, care, 432

Harwich and District General Practitioner Hospital, 364
Heat recovery, from incinerators, 317
Hepatitis patients, care, 381
Hospices, in terminal care, 404
Hospital infection, 376
prevention, 382, 384
by control of antibiotic use, 412
resistance to antibiotics, 383
Hospital services, regional systems, 303
Switzerland, 397
Hospitals, evaluation of treatment methods, 399
use, non-medical factors, Australia, 348
Human experimentation, ethics, 392
Hygiene, kitchens, 371

Incineration, heat recovery, 317
Industrial relations, 324
  United States, 325
Intensive care units, management, Royal Victoria Hospital, Belfast, 421
Isolation, of hepatitis patients, 381
Isolation rooms, air hygiene, 427

Job analysis, productivity monitoring, 321

Kitchens, Christchurch Hospital, 370
  hygiene, 371
Klebsiella infections, 375

Laboratories, admission test profile, 415
  clinical microbiology, computerization of reporting systems, 417
  efficiency, 415
  records, electronic data processing, 353
Laundry services, 372
Legal liability, Great Britain, compensation, 359
  negligence, 361
  risk management, 360
Legal rights, psychiatric patients, 446
Length of stay, differences between Medicaid and Blue Cross, 349
Liaison nursing office, West Suffolk Hospital, 406
Libraries, use by nurses, 352
Lifts, energy conservation, methods, 315
Long-stay hospitals, voluntary workers, 443

Management, blood banks, planning models, 419
  Great Britain, 306
  multi-hospital, 347
  nursing, audit, 396
  problems, case studies, 343
  training, 326
    for nurses, 336
Maternity departments, electronic data processing, 438
Maternity patients, home-versus-hospital confinement, 437
Meals, survey, Great Britain, 366
Medical equipment, electrical safety, 386
Medical records, departments, role, 344
  Kardex system, 355
  practice-oriented, 356
  problem-oriented, 354
    electronic data processing, 357
Medical staff, communications with patients, 390
  risk management, 360
Mentally abnormal offenders, regional secure units, Great Britain, 450
Mentally handicapped patients, hospitals, design, 313
  locally based hospital units, Wessex Region, 445
  voluntary workers, 443
Microwave ovens, 369
Midwives, salaries, 337
Modernization, Meulan Hospital, France, 311
Multi-hospital systems, 347
  Canada, 345

Nucleus hospitals, 310
Nuffield Nursing Homes Trust, 302
Nurse(s), conditions of service, improvements needed, 332
  geriatric departments, role, 432
  introductory discussion with patients on the ward, 389
  library use, 352

management training, 336
manpower problems, 332
night duty, effects, 322
recruitment, 334, 335
salaries, 337
scheduling, electronic data processing, 323
shift duties, effects, 322
training, for management, 336
unemployment, 334
working conditions, 330
Nursery, administration, improvements needed, 332
Nursing, care, evaluation, 398
management, audit, 396
in intensive care units, 421
leadership, 331
ophthalmic patients, in general wards, 440
process, 329
technical aspects, over-emphasis, 400
Nursing homes, private, Great Britain, 302
Nursing services, 333

Operations audit, 346
Ophthalmic patients, nursing, in general wards, 440
Out-patient surgery, 435
Out-patients, appointment times, zoning, 395

Paediatric nurses, uniform or mufti, patients' view, 338
Parents, unrestricted visiting, 429
Patients, care, electronic data processing, 357
human aspects, 400
quality, assurance, 401
evaluation, 398, 399
communications with doctors, 390
introductory discussions with ward nurse, 389
use in medical research, 392
views on hospital, 391
views, on mixed-sex wards, 407
Personnel management, problems, case studies, 343
Pharmacies, 408
electronic data processing, 414
organization, 409
Pharmacists, part-time, Great Britain, 411
training, in drug information services, 410
Planning, critical success factors, 304
hospital services, Great Britain, 306
Post-graduate teaching hospitals, London, 301
Pressure sores, medicaments for, contamination, 378
Productivity, monitoring, 321
Pseudomonas pseudomallei infection, 374
Psychiatric departments, in general hospitals, organization, 442
Psychiatric hospitals, organization and management, 441
staff, work performance, evaluation, 444
Psychiatric patients, day care, 449
legal rights, 446
Psychiatric services, Sweden, 447
Psycho-geriatric care, assessment units and day hospitals, 448
Public relations, 358
Purchasing, group, food, 367

Radiology departments, direct access by general practitioners, 420
Refuse disposal, heat recovery, 317
Regional secure units, Great Britain, 450

Regional systems, for hospital services, 303
Rural hospitals, need for multidisciplinary staff, 320

Salmonella infections, surveys of hospital areas, 384
Screening, multiphasic, in elderly people, evaluation, 416
Shared services, United States, 342
Sign-posting, Pitié-Salpetrie Hospital, Paris, 314
Sisters, stress, variation by specialty, 339
Special baby care units, information booklet for parents, 439
Staff, cafeteria, Christchurch Hospital, 370
  industrial relations, United States, 325
  management, case studies, 343
  multidisciplinary, for rural hospitals, 320
  productivity monitoring, 321
  statistics, electronic data processing, 351
  training, in-service, 327
Staphylococcal infection, in burns unit, 377
Staphylococcus aureus, infection of hospital and office staff, 379
Statistics, hospital admissions, Australia, 348
Student nurses, assessment form, 340
Surgery, economic aspects, 436
Sweden, psychiatric services, 447

Teaching hospitals, post-graduate, London, 301
Team care, cancer departments, 433
Terminal care, 402
  ethics, 405
  finance, United States, 403
  hospices, 404

Ultra-violet lamps, for disinfection, in dialysis rooms, 385
Unit dose dispensing, electronic data processing, 414

Voluntary workers, for the mentally handicapped, 443
  training, 393

Wards, mixed-sex, patients attitudes, 407

Zero-base budgeting, 363

Addresses of publications referred to in this issue

JOURNALS—(*The price of a single issue is given where known*)

Administration Hospitalière et Sociale, 4237 Rue de Bordeaux, Montreal, Canada. $2.50
Administration in Mental Health, 72 Fifth Avenue, New York, N.Y. 10011, U.S.A. *and* 3 Herietta St., London WC2E 8LU.
American Journal of Clinical Pathology, East Washington Sq., Philadelphia, Pa. 19105, U.S.A. $5.00
American Journal of Obstetrics and Gynecology, 11830 Westline Industrial Drive, St. Louis, Mo. 63141, U.S.A. $4.50
Annals of Internal Medicine, 4200 Pine St., Philadelphia, Pa. 19104, U.S.A.
Biomedical Engineering, Plenum Publishing Corporation, 227 W. 17th St., New York, N.Y. 10011, U.S.A.
British Medical Journal, B.M.A. House, Tavistock Sq., London WC1H 9JR.
CHC News, 362 Euston Road, London NW1 3BL.
Canadian Medical Association Journal, P.O. Box 8650, Ottawa, Ont. K1G 0G8, Canada.
Canadian Nurse, 50 The Driveway, Ottawa, K2P IE2, Canada. $1.00
Chartered Mechanical Engineer, Box 24, Northgate Ave., Bury St. Edmunds, Suffolk IP32 6BW, England.
Clinical Chemistry, 1115 16th St., N.W., Washington, D.C. 20036, U.S.A.
Community Health Studies, Department of Community Medicine, University of Adelaide, North Terrace, Adelaide 5000, Australia. A$4.50
Deutsche Krankenpflege-Zeitschrift, Postfach 747, Urbanstrasse 12-14, 7000 Stuttgart 1, West Germany.
Drug Intelligence and Clinical Pharmacy, Hamilton Press, Hamilton, Ill. 62341, U.S.A.
Early Human Development, P.O. Box 211, 1000 AE Amsterdam, Netherlands.
Estudios sobre Hospitales, Apartado 5326, Barcelona, Spain.
Ethics in Science and Medicine, Headington Hill Hall, Oxford OX3 0BW, England.
Health Care, 1450 Don Mills Road, Don Mills, Ontario, M3B 2X7, Canada. $2.00
Health and Social Service Journal, 3 Dyers Buildings, Holborn, London EC1N 2NR. £0.25
Hospital Forum, 830 Market Street, San Francisco, Calif. 94102, U.S.A. $1.25
Hospital and Health Services Administration, American College of Hospital Administrators, 840 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A. $1.50
Hospital and Health Services Purchasing, 75 Portland Place, London W1N 4AN.
Hospital Medical Staff, 840 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A. $1.00
Hospitals, 840 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A. $2.00
Journal of Advanced Nursing, Blackwell Scientific Publications Ltd., P.O. Box 88, Oxford OX2 0EL, England.
Journal of the American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610, U.S.A.
Journal of Dialysis, 270 Madison Ave., New York, N.Y. 10016, U.S.A.
Journal of Human Nutrition, 48 Poland St., London W1V 4PP. £3.00
Journal of Hygiene, Cambridge University Press, P.O. Box 110, Cambridge CB2 3RL, England. £7.50
Journal of Nursing Administration, 12 Lakeside Park, 607 North Ave., Wakefield, Mass. 01880, U.S.A. $3.00
Journal of the Royal College of General Practitioners, Update Publications, 33-34 Alfred Place, London SW7 1PU.
Legal Action Group Bulletin, 28a Highgate Rd., London, NW5 1NS.
Midwife, Health Visitor & Community Nurse, Recorder House, 91 Church St., London N16.
New Zealand Hospital, Paragon Chambers, Cable Car Lane, P.O. Box 3541, Wellington, New Zealand.
Nursing Focus, 91 Stoke Newington Church St., London N16 0AU.
Nursing Mirror, Surrey House, 1 Throwley Way, Sutton, Surrey SN1 4QQ, England. £0.18
Nursing Times, Macmillan Journals Ltd., Little Essex St., London WC2R 3LF. £0.18
Ospedale, Corso Turati 46, 10128 Torino, Italy. L.1,000
Österreichische Krankenhaus-Zeitung, Klopstockgasse 34, 1170 Wien, Austria. Sh.35
Pharmaceutical Journal, 1 Lambeth High St., London SE1 7JN. £0.40
Practitioner, 30 Calderwood St., London SE18 2BP. £1.00
Public Health Reports, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, U.S.A. $1.75

Reviews of Infectious Diseases, University of Chicago Press, Chicago, Ill. 60637, U.S.A. $7.00
Sjukhuset, Hallegatan 13, 417 02 Göteborg, Sweden. 10.00kr.
Southern Hospitals, Box 88, Greenville, S.C. 29602, U.S.A. $1.00
Spectator, 99 Gower St., London WC1E 6AE.
Sygeplejersken, Vimmelskaftet 38, Postbox 1084, 1008 København K, Denmark.
Techniques Hospitalières, 83/87 avenue d'Italie, 75013 Paris, France. 35F
Transfusion, J. B. Lippincott, East Washington Sq., Philadelphia, Pa. 19105, U.S.A. $5.00
Veska, Postfach 149, 5001 Aarau, Switzerland. Sw.fr.6

PUBLISHERS

American Hospital Association, 840 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A.
Aspen Systems Corpn., 11600 Nebel St., Rockville, Md. 20852, U.S.A.
Australian College of Medical Administrators, 35 Drummond St., Carlton, Tasmania, Australia.
Blackwell Scientific Publications Ltd., Osney Mead, Oxford OX2 0EL, England.
Canadian Department of National Health and Welfare, Ottawa, Ont., Canada.
Churchill Livingstone, 104 Gloucester Place, London W1H 4AE.
Department of Health and Social Security, Alexander Fleming House, Elephant and Castle, London SE1 6BY.
Health Services Research Unit, University of Kent at Canterbury, Canterbury, Kent CT2 7NZ, England.
Her Majesty's Stationery Office (HMSO), P.O. Box 569, London SE1 9NH.
Institute for Health Studies, Hull University, Hull HU6 7RX, England.
Machine Intelligence Research Unit, Old College, South Bridge, Edinburgh, EH8 9YL, Scotland.
Manpower Services Commission, Selkirk House, 166 High Holborn, London WC1V 6PB.
Marcel Dekker, 270 Madison Ave., New York, N.Y. 10016, U.S.A.
Medical Sociology Centre, University College of Swansea, Singleton Park, Swansea SA2 8PP, Wales.
Mosby, 3207 Washington Blvd., St. Louis, Mo. 63103, U.S.A.
National Technical Information Service, U.S. Dept. of Commerce, 425 13th St., N.W., Suite 620, Washington, D.C. 20004, U.S.A.
New South Wales Hospital Planning Advisory Centre, 28 Foveaux Street, Surrey Hill, N.S.W. 2010, Australia.
New Zealand Department of Health, Wellington, New Zealand.
Newcastle-upon-Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle-upon-Tyne, NE1 8ST.
Pergamon Press, Maxwell House, Fairview Park, Elmsford, N.Y. 10523, U.S.A. *and* Headington Hill Hall, Oxford OX3 0BW, England.
Scottish Health Services Centre, Crewe Road South, Edinburgh, EH4 2LF.
Spri, Box 1109, 11181 Stockholm, Sweden.
University of Manchester Institute of Science and Technology, P.O. Box No. 88, Sackville Street, Manchester M60 IQD, England.
Wessex Regional Health Authority, Highcroft, Romsey Road, Winchester, Hants.
Williams & Wilkins, 428 E, Preston St., Baltimore, Md. 21202, U.S.A.
World Health Organization, Avenue Appia, Geneva, Switzerland.
World Health Organization, Regional Office for Europe, 8 Scherfigsvej, 2100 København, Denmark.

Printed in England for Her Majesty's Stationery Office by Holmes & Sons, 10 High Street Andover, Hants

Dd0596113 3/80 K10 11334

HER MAJESTY'S STATIONERY OFFICE

Government Bookshops

49 High Holborn, London WC1V 6HB
13a Castle Street, Edinburgh EH2 3AR
41 The Hayes, Cardiff CF1 1JW
Brazennose Street, Manchester M60 8AS
Southey House, Wine Street, Bristol BS1 2BQ
258 Broad Street, Birmingham B1 2HE
80 Chichester Street, Belfast BT1 4JY

Government Publications are also available through booksellers

ISBN 0 11 722665 3
ISSN 0018 5507